



VOYAGER-2G

OPERATING MANUAL

LIMITED TWO-YEAR WARRANTY

For details, refer to the Product Warranty Registration Card provided.

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TRADEMARK NOTICE

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PATENT NOTICE

U.S. Patents have been issued, or applied for, to protect the following design features:

Data Sensing and Processing Device (U.S. Patent no. 4,882,678), Ascent Rate Indicator (U.S. Patent no. 5,156,055).

CE

The CE mark is used to mark conformity with the European Union EMC directive 89/336/EEC. Beuchat dive instruments fulfill the required EU directives.

EN 13319 "Diving accessories - Depth gauges and combined depth and time measuring devices - Functional and safety requirements, test methods" is a European diving depth gauge standard. The VOYAGER 2G is designed to comply with this standard.

DECOMPRESSION MODEL

The program within the VOYAGER 2G simulates the absorption of nitrogen into the body by using a mathematical model. This model is merely a way to apply a limited set of data to a large range of experiences. The VOYAGER 2G dive computer model is based upon the latest research and experiments in decompression theory. **Still, using the VOYAGER 2G, just as using the Navy (or other) No Decompression Tables, is no guarantee of avoiding decompression sickness, i.e. "the bends."** Every diver's physiology is different, and can even vary from day to day. No machine can predict how your body will react to a particular dive profile.

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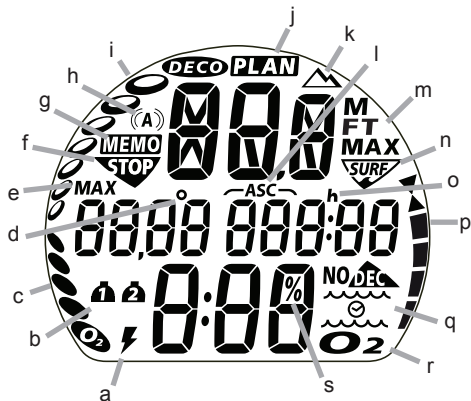
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OVERVIEW



Components:

- a. Icon - Low Battery
- b. Icon - Gas # (mix)
- c. O₂BG (O₂ Bar Graph)
- d. Icon - Degrees
- e. Icon - Max/Depth
- f. Icon - Stop
- g. Icon - Memo Mode
- h. Icon - Alarm
- i. NiBG (Nitrogen Bar Graph)
- j. Icon - Plan mode
- k. Icon - Altitude
- l. Icon - Ascent Rate
- m. Icon - Depth/Max Depth
- n. Time to Surface
- o. Icon - Time of Day
- p. Ascent Rate Indicator
- q. Icon - Deco Stop Time Required
No Deco Time Remaining
Elapsed Dive Time
- r. Icon - O₂ Time
- s. Icon - % O₂

FULL LCD

INTRODUCTION

Welcome to Beuchat and thank you for choosing the VOYAGER 2G !

It is extremely important that you read this Operating Manual in sequence and understand it completely before attempting to use the VOYAGER 2G as a dive computer.

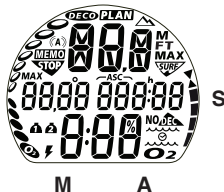
Remember that technology is no substitute for common sense, and a dive computer only provides the person using it with data, not the knowledge to use it.

CONTROL BUTTONS

The VOYAGER 2G features three Control Buttons that allow you to select mode options and access specific information. They are also used to enter Settings, activate the Backlight, and acknowledge the Audible Alarm.

Throughout this manual they will be referred to as the M, A, and S buttons.

- Front/Left - Mode (M) button
- Front/Right - Advance (A) button
- Right/Side - Select (S) button



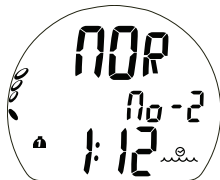


Fig. 1A - NORM MODE



Fig. 1B - GAUG MODE



Fig. 2 - FREE MODE

OPERATING MODES

The VOYAGER 2G features 3 Operating Modes, NORM (Fig. 1A) which is used for Air and Nitrox SCUBA dives, GAUG (Fig. 1B) used for SCUBA dives in which Nitrogen-Oxygen calculations are not performed, and FREE (Fig. 2) used for breath hold activities that do not use SCUBA.

- > NORM Mode allows access to Fly, Sat, Memo, and Historical Modes, as well as entering settings.
- > GAUG Mode is similar without access to Sat.
- > FREE Mode only allows access to specific Free Modes.

AUDIBLE ALARM

Most warning situations that activate the Audible Alarm while operating in NORM or GAUG Mode cause the VOYAGER 2G to emit 1 beep per second for 10 seconds, or until the situation is corrected, or it is acknowledged by momentarily pressing and releasing the S button (less than 2 seconds).

After being acknowledged and the situation corrected, the Alarm will sound again upon reentry into the warning situation, or entry into another type of warning situation.

FREE Mode has its own set of Alarms which emit 3 short beeps either 1 or 3 times which cannot be acknowledged or set Off.

Situations that will activate the NORM/GAUG 10 second Alarm include -

- Descent deeper than the Depth value set.
- Dive Time Remaining decreases to the value set.
- Elapsed Dive Time reaches to the value set.
- PO2 reaches to the value set.
- O2 reaches 300 OTU (max single or daily exposure allowed).
- Nitrogen Bar Graph reaches the segment value set.
- NORM/GAUG Ascent Rate exceeds 18 MPM (60 FPM) when deeper than 18 M (60 FT), or 9 MPM (30 FPM) at 18 M (60 FT) and shallower.
- Entry into Decompression Mode (Deco).
- Conditional Violation (above a required Deco Stop Depth < 5 minutes).
- Delayed Violation (above a required Deco Stop Depth => 5 minutes).
- Delayed Violation (Deco requires a Stop Depth > 18 M/60 FT).
- Delayed Violation (descent deeper than the Max Operating Depth of 100 M/330 FT in NORM, or 120 M/399 FT in GAUG).
- A Gas Switch would expose the diver to PO2 greater than 1,60 ATA.

A single short beep (which cannot be disabled) is emitted for the following -

- Upon completion of a battery change.
- Change from Delayed to Full Violation 5 minutes after the dive.

3 short beeps (which cannot be disabled) are emitted for the following -

- NORM/GAUG Ascent Rate is 15,1 to 18 MPM (51 to 60 FPM) when deeper than 18 M (60 FT), or 7,5 to 9 MPM (26 to 30 FPM) at 18 M (60 FT) and shallower.
- FREE Dive Elapsed Dive Time Alarm (3 beeps every 30 seconds if set On).
- FREE Dive Depth Alarms 1/2/3 (set sequentially deeper) - each 3 beeps 3 times.

- FREE Dive NiBG Alarm (Caution zone, 7 segments) - 3 beeps 3 times.
- Entry into Deco during a FREE Dive (Permanent Violation) - 3 beeps 3 times.
- Free Dive Mode Countdown Timer reaches 0:00 - each 3 beeps 3 times.

During the following NORM Dive situations, the 10 second continuous tone will be followed by a 5 second steady beep that will not turn off when acknowledged -

- Ascending above a required Decompression Stop Depth for more than 5 minutes (referred to as a Delayed Violation).
- Decompression requires a Stop Depth of 70 FT/21 M or deeper.
- Being on the Surface for 5 minutes after a Conditional Violation.

BACKLIGHT

- > To activate the Backlight, while on the surface and during dives >> depress the S button for 2 seconds.
- The Backlight will illuminate the display for button depression time plus the Duration time set 0 , 5 , or 10 seconds.
**The Backlight will turn Off if the button is held depressed for more than 10 seconds.*
- Press the button again to activate as desired.

 **NOTE: Extensive use of the Backlight reduces estimated Battery life. Also, the Backlight does not operate during a Low Battery Condition or when the VOYAGER 2G is connected to a PC.**

POWER SUPPLY

The VOYAGER 2G uses (1) 3 volt CR2450 Lithium Battery which should maintain operation for 1 year or 300 dive hours if 2 dives are conducted during each dive period. The VOYAGER 2G checks battery voltage every 2 minutes while on the surface.

- If voltage of the VOYAGER 2G decreases to the Warning level (2,75 volts), the Battery icon will appear on Surface display screens (Fig. 3a) as an indication that the Battery should be changed prior to commencing a series of dives.
- If voltage decreases to the Alarm level (2,50 volts), the graphics CHG and bAt will alternate in place of NOR, and the Battery icon will flash, (Fig. 4) for 5 seconds then the unit will shut Off.
- Low Battery conditions are not displayed during dives. If a Low Battery condition was not displayed prior to starting a Dive, and a Low Battery Condition occurs during the dive, there will be sufficient Battery power remaining to maintain operation for the remainder of that dive.
- Upon surfacing, the Low Battery icon will be displayed with warning or alarm indication as described above.

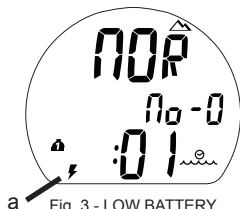


Fig. 3 - LOW BATTERY WARNING



Fig. 4 - LOW BATTERY ALARM

PC INTERFACE

Interface with a PC (for data Upload and Download) is accomplished by connecting the VOYAGER 2G to a PC USB Port using the special USB Interface Cable available as an option.

The PC Interface program and a USB Driver are provided on the product CD. The Help portion serves as the program's user manual and can be printed for personal use. The settings upload portion is used to check the VOYAGER 2G's existing settings and for entering Time, Alarm, and other settings into the VOYAGER 2G. The download portion is used to retrieve data that was sampled during dives and stored in the VOYAGER 2G's memory.

The VOYAGER 2G checks for an external access request once every second while in Surface Mode. Checks are not made if the unit is wet. For a connection to be made, the interface cable is connected to the VOYAGER 2G's Data Port and plugged into a PC USB port. To establish the connection, the PC program must be running.



Fig. 5 - PC
(during upload/download)

When the connection is made, a PC screen appears on the VOYAGER 2G (Fig. 5) displaying the graphic PC and a countdown for 2 minutes or until completion of the interface operation. Then operation reverts to the Surface Main screen.

FEATURES AND DISPLAYS

BAR GRAPHS

The VOYAGER 2G features 3 Bar Graphs >> NiBG, O2BG, and ASC.

NiBG (Nitrogen Loading Bar Graph)

The NiBG (Fig. 6a) represents tissue loading of nitrogen, showing your relative no decompression or decompression status. As your depth and elapsed dive time increase, segments will add to the NiBG, and as you ascend to shallower depths, the segments will recede, indicating that additional no decompression time is allowed for multilevel diving.

The NiBG monitors 12 different nitrogen compartments simultaneously and displays the one that is in control of your dive. It is divided into a No Deco zone (lower 6 segments), a Caution zone (7th segment), and a Deco (danger) zone (top segment).

While you cannot provide a guarantee against the occurrence of decompression sickness, you may choose your own personal zone of caution based upon age, physique, excessive weight, etc., to reduce the statistical risk.

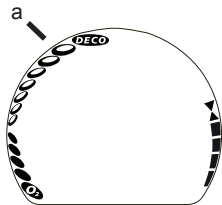


Fig. 6 - NiBG



NOTE: Displays associated with oxygen and the O2BG will only appear if FO2 has been set at a value other than 'Air' (e.g., a numerical value).

O2BG (Oxygen Bar Graph)

The O2BG (Fig. 7a) represents oxygen loading, showing the maximum of either per dive accumulated oxygen, or 24 hour period accumulated oxygen.

As your oxygen exposure (accumulation) increases during the dive, segments will add to the O2BG, and as saturation decreases, it will begin to recede indicating that additional exposure is allowed for that dive and 24 hour period.

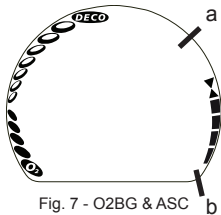


Fig. 7 - O2BG & ASC

ASC (Ascent Rate Indicator)

The ASC (Fig. 7b) provides a visual representation of ascent speed (i.e., an ascent speedometer).

The segments of the ASC represent two sets of speeds which change at a reference Depth of 18 M (60 FT). Refer to the chart for segment values.



WARNING: At depths greater than 18 M (60 FT), ascent rates should not exceed 18 meters per minute (60 feet per minute). At depths of 18 M (60 FT) and shallower, ascent rates should not exceed 9 meters per minute (30 feet per minute).

ASC values

Deeper than 18 M (60 FT)

Segments	Ascent Rate =	
Displayed	MPM	FPM
0	0 - 6	0 - 20
1	6.5 - 9	21 - 30
2	9.5 - 12	31 - 40
3	12.5 - 15	41 - 50
4	15.5 - 18	51 - 60
5	> 18	> 60

18 M (60 FT) & Shallower

Segments	Ascent Rate =	
Displayed	MPM	FPM
0	0 - 3	0 - 10
1	3.5 - 4.5	11 - 15
2	5 - 6	16 - 20
3	6.5 - 7.5	21 - 25
4	8 - 9	26 - 30
5	> 9	> 30

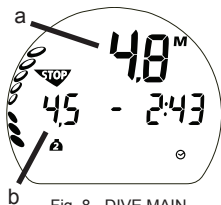


Fig. 8 - DIVE MAIN
(at a Safety Stop)

ALPHA/NUMERIC DISPLAYS

Each numeric and graphic display represents a unique piece of information. It is imperative that you understand the formats, ranges, and values of the information represented to avoid any possible misunderstanding that could result in error.

Depth

Current Depth is displayed on the Main Dive screens (Fig. 8a) with the M (or FT) icon from 0 to 99,9 M (330 FT) in NORM/FREE, 120 M (399 FT) in GAUG, in increments of 0,1 M (1 FT).

Stop Depths (Deep, Safety, and Deco) are also displayed on the Main screens (Fig. 8b) when applicable.

Max Depth is displayed on Alternate screens (Fig. 9a) with the M (or FT) and MAX icons from 0 to 99,9 M (330 FT) in NORM/FREE, 120 M (399 FT) in GAUG, in increments of 0,1 M (1 FT).



Fig. 9 - DIVE ALTERNATE

Time and Date

Most Time displays like Time of Day (Fig. 9b) are shown in hour:minute format (i.e., 9:34 represents 9 hours and 34 minutes, not 934 minutes!). The colon that separates hr:min (min:sec) blinks once per second when the display is indicating real time (e.g., Time of Day, Elapsed Dive Time).

When Times are calculated projections such as NDC (Fig. 10a) and Elapsed Dive Time (Fig. 10b), the colon is solid.

FREE Dive Mode displays Times in minute:second format.

Date is only displayed in Memo Mode.

Altitude

When activities are being conducted at elevations higher than 915 meters (3000 feet) , an Altitude (mountain) icon will be displayed on Surface and Dive Main screens as an indication that Depth displays and calculations will be adjusted due to higher altitude.

The higher Altitude levels (listed below) can be viewed by accessing a Surface Alternate screen (Fig. 11). While in Dive Mode, the Altitude icon will be displayed only if it applies.

- Sea Level = up to 915 meters (3000 feet)
- EL - 2 = 916 to 1525 meters (3001 to 5000 feet)
- EL - 3 = 1526 to 2135 meters (5001 to 7000 feet)
- EL - 4 = 2136 to 2745 meters (7001 to 9000 feet)
- EL - 5 = 2746 to 3355 meters (9001 to 11000 feet)
- EL - 6 = 3356 to 3965 meters (11001 to 13000 feet)
- EL - 7 = 3966 to 4270 meters (13001 to 14000 feet)



Fig. 10 - TIMES
(during dive)



Fig. 11 - SURF ALT 1
(Altitude, Battery status)

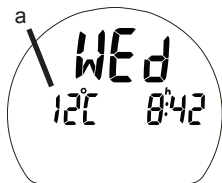


Fig. 12 - SURF ALT 2

Temperature

Ambient Temperature (Fig. 12a) can be viewed by accessing the Surface ALT 2 or a Dive ALT screen.



WARNINGS AND SAFETY RECOMMENDATIONS

- It should not be considered that the capabilities built into the VOYAGER 2G provide an implied approval or consent from Beuchat for individuals to exceed the defined limits for recreational diving, as agreed on by all internationally recognized training agencies.
- The oxygen features of the VOYAGER 2G are intended for use by recreational divers trained for Nitrox diving by an instructor certified by a recognized training agency to teach diving with Nitrox.
- Conducting repetitive dives using enriched nitrogen-oxygen mixtures can lead to oxygen buildup, reducing oxygen tolerance while increasing the risk of pulmonary oxygen toxicity.
- The VOYAGER 2G provides information based upon a personal dive profile, and therefore must not be shared between divers. It is impossible for two divers to stay precisely together underwater, and your computer's dive profile tracking of previous dives will be pertinent to you only. Nitrogen and oxygen loading of a second user may be significantly different and swapping dive computers could lead to inaccurate and dangerous predictions of decompression and oxygen accumulation status.

SURFACE MODES

OPERATING MODES

As described previously, there are 3 Operating Modes -

- NORM - for Air or Nitrox SCUBA dives
- GAUG - for SCUBA dives with no nitrogen/oxygen calculations
- FREE - for breath hold dives with no SCUBA

SURFACE MODE

After activation and while the NORM Surface Main screen is displayed, depressing the M button repeatedly (2 sec each time) will access the GAUG and FREE Surface Main screens. Pressing M momentarily will select the one displayed for operation.

- The mode selected (NORM, GAUG, or FREE) will remain on display for 2 hours until a dive is made or another operating mode is selected.

If a dive has been conducted within the past 24 hours, the Surface Main screen for that mode will be displayed until changed.

At any time while operating in Surface modes, the VOYAGER 2G will enter Dive Mode upon descent to 1,5 M (5 FT) for 5 seconds.

The VOYAGER 2G will enter post dive Surface Mode following a dive upon ascent to 1,2 M (4 FT) for 1 second. The Surface Interval Time colon will flash during the first 10 minutes after a NORM/GAUG dive, or first 1 minute after a FREE dive.

During the first 2 hours after a dive, the Surface Main screen (NORM, GAUG, or FREE) remains on display.

NORM SURF MAIN, information includes (Fig. 13):

- > Graphic NOR.
- > Altitude (mountain) icon, only if at EL - 2 to EL - 7.
- > Number of that dive (0 if no dive made yet) with No - icon.
- > Surface Interval Time (hr:min) with clock/wave icon.
- > Gas 1 icon, the default start Gas and default Gas 10 minutes after a dive.
- > Battery icon if a Low Battery condition exists.
- > NiBG, if any after a NORM or FREE dive.
- > O2BG, if any after a NORM Nitrox dive.



Fig. 13 - NORM SURF MAIN
(after dive 2)

- A (< 2 sec) - to access NORM SURF ALT 1.
- A (2 sec) - to access Memo Mode, then again History.
- S (< 2 sec) - to access Plan Mode, then pressing it again after dives to access Fly, then Sat.
- S (2 sec) - to activate the Backlight.
- A & S (2 sec) - to access Set Modes (F, A, U, T).
- M (2 sec) - to access GAUG SURF Main, then again FREE.

NORM SURF ALT 1, information includes (Fig. 14):

- > Graphics Alt and SEA (or EL2 to EL7) with icon.
- > Graphics bAtt and OP, if battery voltage is good ($\geq 2,75$ v), or battery icon if battery voltage is low ($< 2,75$ v).



Fig. 14 - NORM SURF ALT 1

- A (< 2 sec)* - to access NORM SURF ALT 2.
- S (2 sec) - to activate the Backlight.



Fig. 14 - NORM SURF ALT 2

NORM SURF ALT 2, information includes (Fig. 14):

- > Day of week graphic.
- > Temperature with degrees icon and graphic C (or F).
- > Time of Day (hr:min) with Time icon (h).

- A (< 2 sec)* - to revert to Main.
- S (2 sec) - to activate the Backlight.

**Operation reverts to the Main after 5 seconds if A is not pressed.*

NORM/GAUGE SET MODES

Sequence >> Set F >> Set A >> Set U >> Set T >> SN.

- A & S (2 sec), while viewing SURF Main - to access the sequence, then again to step through it.
- M (2 sec) at any time, or 2 minutes of no button action, while in the Set routine - to revert to SURF Main.
- A & S (2 sec)
 - > Set A, U, and T items can also be set/changed using the PC interface program. FO2 must be set using the push buttons.
 - > The Backlight will not operate when S is operated to change settings.

SET F (NORM FO2)

Sequence >> FO2 Gas 1 >> FO2 Gas 2 >> 50% Default

When the FO2 50% Default is set Off, FO2 will remain set at the last settings saved during that period of activation.

When the FO2 50% Default is set On and FO2 is set for a numerical value, 10 minutes on the surface after that dive the FO2 will be displayed as 50 and further dives will be calculated based on 50% O2 for oxygen calculations and 21% O2 for Nitrogen calculations (79% Nitrogen), unless FO2 is set before the dive.

FO2 will continue to reset to the FO2 50% Default after subsequent repetitive dives until 24 hours elapse after the last dive, or the FO2 50% Default is set Off.

FO2 set to Air

The default FO2 settings each new activation period will be Air.

When FO2 Gas 1 is set for Air -

- > calculations are the same as when FO2 is set for 21%.
- > it will remain set for Air until set for a numerical FO2 value (21 to 100%).
- > O2 data (such as PO2, O2%) will not be displayed at any time during the dive, on the surface, or in Plan mode.
- > MODs (Max Operating Depths) will not be displayed on the FO2 set screen.
- > internally, the VOYAGER 2G will keep track of O2 data for use if FO2 for Gas 1 is subsequently set for Nitrox for repetitive dives.

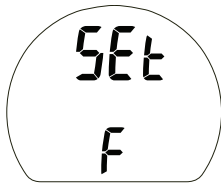


Fig. 15 - SET F

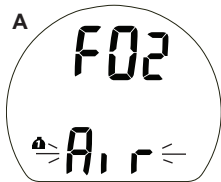
FO2 set for Nitrox

When FO2 for either Gas is set for a numerical value, the dive is considered Nitrox.

- > The Air option will not be displayed as an FO2 Gas 1 set selection until 24 hours elapse after the last dive.
- > The unit is programmed to prevent setting FO2 Gas 2 for values less than those set for FO2 Gas 1.

Set F, information includes (Fig. 15):

- > Graphics SEt and F.



- A & S (2 sec) - to access Set A.
- A (< 2 sec) - to access Set FO2 Gas 1.

Set FO2 Gas 1, information includes (Fig. 16A, B):

- > Graphic FO2.
- > Max Depth (M or FT) allowed for the PO2 alarm set with MAX icon and graphic PO2, if Nitrox (blank if Air).
- > Gas 1 icon.
- > Graphic Air, or numeric FO2 setting value if Nitrox, flashing, with O2 icon.

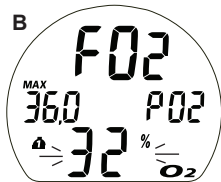


Fig. 16 - SET FO2 GAS 1

- S (hold) - to scroll through settings at a rate of 8 per second from Air (default) to 21% through 50% in increments of 1%.

- > The scroll will stop when S is released, or at 32% (even if S is held depressed). Pressing and holding S again will resume the scroll through 50, then stop at Air or 21%.
- S (< 2 sec) - to step through settings one at a time.
- A (< 2 sec) - to save the setting and access Set FO2 Gas 2.
- A & S (2 sec) - to revert to Set F.

Set FO2 Gas 2, information includes (Fig. 17):

- > Graphic FO2.
- > Max Depth (M or FT) allowed for the PO2 alarm set with MAX icon and graphic PO2, if Nitrox (blank if Air).
- > Gas 1 icon.
- > Graphic Air, or numeric FO2 setting value if Nitrox, flashing, with O2 icon.
- S (hold) - to scroll through settings (beginning at the value set for Gas 1) at a rate of 8 per second from Air (default) to 21 through 100 (%) in increments of 1%.
- > The scroll will stop when S is released, or at 32, 50, and 80% (even if S is held depressed). Pressing and holding S again will resume the scroll through 100, then stop at Air or 21%.
- S (< 2 sec) - to step through Set Points one at a time.
- A (< 2 sec) - to save the setting and access Set FO2 Default.
- A & S (2 sec) - to revert to Set F.

FO2 Gas 2 cannot be set for values < Gas 1.



Fig. 17 - SET FO2 GAS 2



Fig. 18 - SET FO2 DEFAULT



Fig. 19 - SET A



Fig. 20 - SET AUDIBLE

Set FO2 Default, information includes (Fig. 18):

- > Graphics FO2 and 50%.
- > Graphic OFF (or ON) flashing.
- S (< 2 sec) - to toggle OFF and ON.
- A (< 2 sec) - to save the setting and revert to Set F.
- A & S (2 sec) - to revert to Set F.

SET A (NORM/GAUG ALARMS)

Sequence >> Aud >> Depth >> EDT >> NiBG* >> DTR* >> PO2*.

**Items apply to NORM only.*

Set Points remain as set until changed.

Set A, information includes (Fig. 19):

- > Graphics SEt and A.
- A & S (2 sec) - to access Set U.
- A (< 2 sec) - to access Set Audible.

Set Audible Alarm, information includes (Fig. 20):

- > Graphic ALM (alarm) with alarm icon ((A)).
- > Graphic OFF* (or ON) flashing.
- S (< 2 sec) - to toggle OFF and ON.
- A (< 2 sec) - to save the setting and access Set Depth.
- A & S (2 sec) - to revert to Set A.

**Setting the Audible OFF prevents the NORM/GAUG alarms from sounding, it does not affect associated messages or flashing icons, or FREE mode alarms which are separate.*

Set Depth Alarm, information includes (Fig. 21):

- > Graphic dEEP with alarm icon ((A)).
- > Depth value flashing with M (or FT) and MAX icons.
- S (hold) - to scroll through settings at a rate of 8 per second from 10 to 100 M (30 to 330 FT) in increments of 1 M (10 FT).
- S (< 2 sec) - to step through settings one at a time.
- A (< 2 sec) - to save the setting and access Set EDT.
- A & S (2 sec) - to revert to Set A.

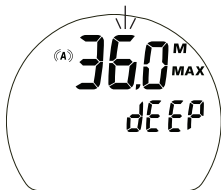


Fig. 21 - SET DEPTH

Set EDT Alarm, information includes (Fig. 22):

- > Graphic Edt (Elapsed Dive Time) with alarm icon ((A)).
- > Time value (hr:min) flashing with wave/clock icon.
- S (hold) - to scroll through settings at a rate of 8 per second from :10 (:min) through 3:00 (hr:min) in increments of :05 (min).
- S (< 2 sec) - to step through settings one at a time.
- A (< 2 sec) - to save the setting and access Set NiBG.
- A & S (2 sec) - to revert to Set A.



Fig. 22 - SET EDT



Fig. 23 - SET Nbg

Set Nbg Alarm, information includes (Fig. 23):

- > Graphic Nbg (Nitrogen Bar Graph) with alarm icon ((A)).
- > Nbg segments flashing.

- S (< 2 sec) - to step through settings from 1 through 7 segments one at a time.
- A (< 2 sec) - to save the setting and access Set DTR.
- A & S (2 sec) - to revert to Set A.



Fig. 24 - SET DTR

Set DTR Alarm, information includes (Fig. 24):

- > Graphic dtr (Dive Time Remaining) with alarm icon ((A)).
- > Time value (:min) flashing with NO DEC and wave/clock icon (meaning DTR).

- S (hold) - to scroll through settings at a rate of 8 per second from :00 through :20 (:min) in increments of :01 (min).
- S (< 2 sec) - to step through settings one at a time.
- A (< 2 sec) - to save the setting and access Set PO2.
- A & S (2 sec) - to revert to Set A.



Fig. 25 - SET PO2

Set PO2 Alarm, information includes (Fig. 25):

- > Graphic PO2 with alarm icon ((A)).
- > PO value (ATA) flashing with MAX icon.

- S (< 2 sec) - to step through settings from 1,20 to 1,60 one at a time in increments of 0,01 (ATA).

- A (< 2 sec) - to save the setting and revert to Set A.
- A & S (2 sec) - to revert to Set A.

SET U (UTILITIES)

Sequence >> Wet Activ >> Units >> DS* >> SS* >> CF* >> Glo >> SR.

**Items apply to NORM only.*

Set Points remain as set until changed.

Set U, information includes (Fig. 26):

> Graphics SEt and U.

- A & S (2 sec) - to access Set T.
- A (< 2 sec) - to access Set Wet Activation.

Set Wet Activation, information includes (Fig. 27):

> Graphics WEt and ACt.
> Set Point OFF (or ON) flashing.

- S (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the setting and access Set Units.
- A & S (2 sec) - to revert to Set U.

Set Units, information includes (Fig. 28):

> Graphics M (or FT) and C (or F) with icon flashing.

- S (< 2 sec) - to toggle between M, C and FT, F.
- A (< 2 sec) - to save the setting and access Set DS.



Fig. 26 - SET U



Fig. 27 - SET WET

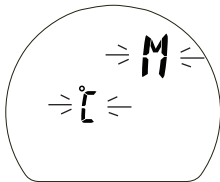


Fig. 28 - SET UNITS



Fig. 29 - SET DS



Fig. 30 - SET SS

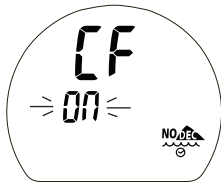


Fig. 31 - SET CF

- A & S (2 sec) - to revert to Set U.

Set DS, information includes (Fig. 29):

- > Graphic dS with STOP icon.
- > Graphic OFF (or ON) flashing.

- S (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the setting and access Set SS.
- A & S (2 sec) - to revert to Set U.

Set SS, information includes (Fig. 30):

- > Graphic SS (Safety Stop) with STOP icon.
- > Graphic OFF (or ON) flashing.

- S (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the setting and access Set CF.
- A & S (2 sec) - to revert to Set U.

Set CF, information includes (Fig. 31):

- > Graphic CF (Conservative Factor).
- > Graphic OFF (or ON) flashing, with NO DEC and wave/clock icon (meaning DTR).

- S (< 2 sec) - to toggle between OFF and ON*.
- A (< 2 sec) - to save the setting and access Set GLO.
- A & S (2 sec) - to revert to Set U.

**When CF is set ON, No Deco limits are reduced to values equivalent to those that would be available at the next higher 915 meter (3000 foot) Altitude level. Refer to tables in back of manual.*

Set Glo, information includes (Fig. 32):

- > Graphic GLO (meaning Backlight Duration*).
- > Time value (sec) flashing with SEC icon.
- S (< 2 sec) - to step through settings of 0 , 5 , and 10 (sec) one at a time.
- A (< 2 sec) - to save the setting and access Set SR.
- A & S (2 sec) - to revert to Set U.

**Backlight Duration is the time the backlight will remain On after S is released (0 = no additional time).*



Fig. 32 - SET GLO

Set SR, information includes (Fig. 33):

- > Graphic SR (Sampling Rate*).
- > Time value (sec) flashing with SEC icon.
- S (< 2 sec) - to step through settings of 2 , 5 , 30 , and 60 (sec) one at a time.
- A (< 2 sec) - to save the setting and revert to Set U.
- A & S (2 sec) - to revert to Set U.

**Sampling Rate is the frequency at which data is sampled and stored for download to the PC Interface program.*

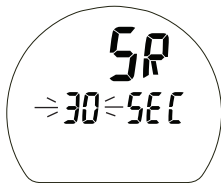


Fig. 33 - SET SR

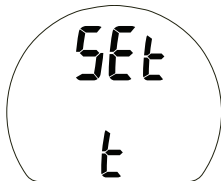


Fig. 34 - SET T

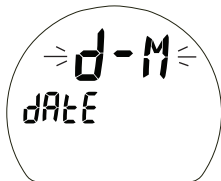


Fig. 35 - SET DATE FORMAT



Fig. 36 - SET HOUR FORMAT

SET T (TIME)

Sequence >> Date Format >> Hour Format >> Time >> Date.

Set Points remain as set until changed.

Set T Lead-in, information includes (Fig. 34):

> Graphics SEt and t.

- A & S (2 sec) - to access SN.
- A (< 2 sec) - to access Set Date Format.

Set Date Format, information includes (Fig. 35):

> Graphic d - M (or M - d) flashing.
> Graphics dAtE.

- S (< 2 sec) - to toggle between d - M and M - d.
- A (< 2 sec) - to save the setting and access Set Hour Format.
- A & S (2 sec) - to revert to Set T.

Date Format establishes the location that the Month (M) digits are displayed relative to the Day (d) digits, on the left or right on the Time of Day display.

M = Month, d = day

Set Hour Format, information includes (Fig. 36):

> Graphic HR.
> 12 (or 24) flashing.

- A (< 2 sec) - to toggle between 12 and 24.
- A (< 2 sec) - to save the setting and access Set Time.
- A & S (2 sec) - to revert to Set T.

Set Time, information includes (Fig. 37):

- > Graphic AM (or PM) if 12 Hour Format, or 24H if 24 Hour Format.
- > Time of Day (hr:min), Hour digits flashing, with h icon.



Fig. 37 - SET TIME

- S (hold) - to scroll through Hour settings at a rate of 8 per second from 12: (AM) to 11: (PM), or 0: to 23: if 24 Hour Format, in increments of 1: (hr).
- S (< 2 sec) - to step through Hour settings one at a time.
- A (< 2 sec) - to save the Hour and flash the Minute digits.
- S (hold) - to scroll through Minute settings at a rate of 8 per second from :00 to :59 in increments of :01 (min).
- S (< 2 sec) - to step through Minute settings one at a time.
- A (< 2 sec) - to save the Time setting and access Set Date.
- A & S (2 sec) - to revert to Set T.

Set Date, information includes (Fig. 38):

Regardless of their position on the display due to the Date Format set, Year is set first, then Month, then Day.

- > Graphic d - M (or M - d), position of Day and Month.
- > Month, Day digits (or Day, Month).
- > Year digits flashing.



Fig. 38 - SET DATE

- S (hold) - to scroll through Year settings at a rate of 8 per second from 2010 to 2053, in increments of 1.
- S (< 2 sec) - to step through Year settings one at a time.
- A (< 2 sec) - to save the Year and flash the Month digits.
- S (hold) - to scroll through Month settings at a rate of 8 per second from 1 to 12 in increments of 1.
- S (< 2 sec) - to step through Month settings one at a time.
- A (< 2 sec) - to save the Month and flash the Day digits.
- S (hold) - to scroll through Day settings at a rate of 8 per second from 1 to 31 (max) in increments of 1.
- S (< 2 sec) - to step through Day settings one at a time.
- A (< 2 sec) - to save the Date setting and access SN.
- A & S (2 sec) - to revert to Set T.

SN, information includes (Fig. 39):

To access - press A & S 10 sec while viewing the NORM (or GAUG) SURF MAIN or 2 sec while viewing Set T.



Fig. 39 - SN

- > Graphic SN.
- > Serial Number, factory programmed.
- > Graphic r1A or higher (Firmware revision number).
- A & S (2 sec) - to revert to Surface Main.

The Serial Number and Firmware Revision will be requested in the event that you contact Beuchat regarding the VOYAGER 2G. Enter them in the Records section provided in the back of this manual.

DIVE PLANNER (NORM only)

It is strongly recommended that you review the Plan dive times prior to every NORM dive to help you avoid exceeding no decompression or oxygen exposure limits. This is especially important for repetitive dives when Plan indicates adjusted dive times based on residual nitrogen or oxygen accumulation, whichever is in control following the last dive and surface interval.

No Decompression Dive Times in Plan are only based on the FO2 setting for Gas 1.

- Press S (< 2 sec) while viewing the NORM SURF Main - to access Plan Lead-in.

Plan Lead-in, information includes (Fig. 40A, B):

- > PLAN and Gas 1 icons.
- > PO2 Alarm setting with graphic PO2, if Nitrox.
- > Graphic Air, or FO2 setting for Gas 1 with % and O2 icons if Nitrox.
- S (< 2 sec) - to access the first Plan Depth/Time screen.
- S (2 sec) - to activate the Backlight.
- A (< 2 sec) - to access FLY.
- M (2 sec) or no button action for 2 min - to revert to Main.

When the Conservative Factor is set ON, No Deco Dive times are reduced to the values of the next 915 meter (3000 foot) higher Altitude.

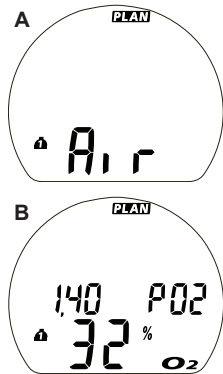


Fig. 40 - PLAN LEAD - IN

Plan Depth/Time, information includes (Fig. 41A/B):

- > PLAN and Gas 1 icons.
- > Planned Depth value with M (or FT) icon.
- > Max Depth allowed for the PO2 Alarm value set with MAX icon and graphic PO2. Blank if FO2 Gas 1 is set for Air.
- > Dive Time (hr:min) allowed for the Depth displayed, with NO DEC icon, and O2 icon if calculations are based on oxygen accumulated from previous dives.



Fig. 41 - PLAN DEPTH/TIME
(set for Nitrox)

- S (< 2 sec) - to step through Plan Depth/Time screens from 9 to 57 M (10 to 190 FT) in increments of 3 M (10 FT).

The Plan screens will only be displayed up to the Max Depth that will allow theoretical No Deco Dive Time of at least 1 minute based upon the previous dive profiles in a series of repetitive dives and taking into account descent and ascent rates of 18 MPM (60 FPM).

- S (2 sec) - to activate the Backlight.
- M (2 sec) or no button action for 2 min - to revert to Main.

FLY COUNTDOWN (NORM/GAUG)

Time to Fly is a counter that begins counting down 10 minutes after surfacing from a dive from 23:50 to 0:00 (hr:min).

To access, press -

- A (< 2 sec) while viewing the NORM Plan Lead-in.
-- or --
- S (< 2 sec) while viewing the GAUG SURF Main.



Fig. 42 - TIME TO FLY

Time to Fly, information includes (Fig. 42):

- > Graphic FLY.
- > Countdown Time (hr:min), dashes (- : - -) if no dive yet.
- A (< 2 sec), in NORM - to access Desat Time.
- A (< 2 sec), in GAUG - to revert to GAUG SURF Main.
- S (2 sec) - to activate the Backlight.
- M (2 sec) or no button action for 2 min - to revert to Main.

DESAT COUNTDOWN (NORM only)

The Time to Desaturate counter provides calculated time for tissue desaturation at sea level taking into consideration the Conservation Factor setting. It begins counting down 10 minutes after surfacing from a dive, counting down from 23:50 (hr:min)max to 0:00.

When the Countdown reaches 0:00, which will generally occur prior to the Fly countdown reaching 0:00, the SAT screen continues to be accessible displaying 0:00 until the Fly counter turns the unit Off 24 hours after a last dive.



Fig. 43 - DESAT TIME

- > The SAT screen is not displayed after a Violation Dive.
- > Desaturation requiring times greater than 24 hours will display 23: --.
- > In the event that Time to Desaturate still remains at the end of 24 hours, the added time will be zeroed.

Desat Time, information includes (Fig. 43):

- > Graphic SAT.
- > Countdown Time (hr:min).
- A (< 2 sec) - to revert to NORM SURF Main.
- S (2 sec) - to activate the Backlight.
- M (2 sec) or no button action for 2 min - to revert to Main.

MEMO MODE (NORM/GAUG)

Memo displays information from the latest 24 NORM and/or GAUG dives sequentially in reverse order (the most recent first). Memo information is retained until over written by another dive. Battery removal will not affect the data stored for viewing.

- > After exceeding 24 dives, data from the most recent dive completed will be recorded and the oldest dive's data deleted.
- > Dives will be numbered 1 to 24 starting at #1 each time a new series of dives begins. After it shuts Off 24 hours after a dive, the first dive of the next new series will be #1.
- A (2 sec), while viewing the SURF Main - to access Memo's first Preview.
- A (2 sec) again - to bypass Memo and access Historical Mode.

Memo Preview, information includes (Fig. 44):

- > MEMO icon.
 - > Graphic NOR (or GAU).
 - > Date (day,month or month,day) the dive was conducted.
 - > Time of Day the dive began (hr:min) with h (time) icon.
 - > Dive number (1 to 24) for that series.
-
- S (hold)* - to scroll through previous Preview screens at a rate of 8 per second.
 - S (2 sec)* - to step through previous Preview screens one at a time.
 - S (< 2 sec)* - to access that dive's Memo Data 1 screen.
 - A (2 sec)*, while viewing the first Preview screen - to access Historical Mode.
 - M (2 sec) or no button action for 2 min - to revert to Main.

**Once S has been pressed to view another Memo screen, a press of A will revert to the SURF Main.*



Fig. 44 - MEMO PREVIEW

Memo Data 1, information includes (Fig. 45):

- > MEMO icon.
- > Max Depth with M (or FT) and MAX icons.
- > Temperature (minimum recorded that dive) with degrees icon and graphic C (or F).
- > Pre dive Surface Interval time (hr:min) with SURF icon, dashes (- : -) if no previous dive that period.
- > Elapsed Dive Time (hr:min) with wave/clock icon.

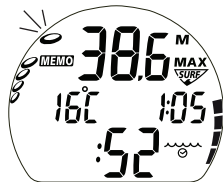


Fig. 45 - MEMO DATA 1

- > NBG with the max segment flashing, others fixed up to end of dive accumulation; all flashing if violation; no NBG if GAUG.
- > ASC representing max ascent rate recorded for 4 seconds.
- S (< 2 sec) - to access Memo Data 2 if NORM Nitrox, or the previous dive's Preview if Air or GAUG, or the SURF Main after the last NORM Air or GAUG Memo 1 screen.
- M (2 sec) or no button action for 2 min - to revert to Main.

Memo Data 2 (NORM Nitrox), information includes (Fig. 46):

- > MEMO icon.
- > Graphic FO2.
- > Max PO2 achieved (ATA) with MAX icon and graphic PO2.
- > FO2 setting for the Gas in use at the end of the dive with %, O2, and Gas 1 (or 2) icons.
- > O2BG representing O2 accumulated at the end of the dive.
- S (< 2 sec) - to access the previous dive's Memo Preview screen or revert to the Main after the last recorded.
- M (2 sec) or no button action for 2 min - to revert to Main.

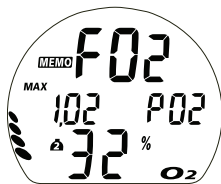


Fig. 46 - MEMO DATA 2

HISTORICAL MODE (NORM/GAUG)

Historical displays information for NORM and/or GAUG dives, and retains it even when the battery is removed.

- Press A (2 sec), while viewing the SURF Main - to access Memo's first Preview screen, then -
- press A (2 sec) again - to access Historical Mode.

Historical 1, information includes (Fig. 47):

- > Max Depth ever recorded with M (or FT) and MAX icons.
 - > Total number of dives recorded, up to 999, no icon.
 - > Total Elapsed Dive Time recorded (hours), up to 9999, with graphic H (= hours).
 - > Graphic HSt.
-
- S (< 2 sec) - to access Historical 2.
 - M (2 sec) or no button action for 2 min - to revert to Main.

Historical 2, information includes (Fig. 48):

- > Altitude graphic SEA (or EL 2 through EL 7), max elevation a dive was conducted, with mountain and MAX icons.
 - > Temperature, lowest recorded with icon and C (or F).
 - > Max EDT (hr:min) for a single dive with wave/clock icon.
-
- S (< 2 sec) - to revert to SURF Main.
 - M (2 sec) or no button action for 2 min - to revert to Main.

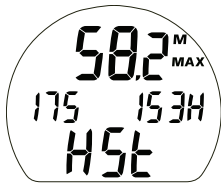


Fig. 47 - HISTORICAL 1



Fig. 48 - HISTORICAL 2

FREE Dives are not recorded in Memo or Historical. The data is stored in memory for subsequent download to the PC Interface program.

FREE does share the NORM/GAUG settings for -

- >> Time/Date**
- >> Wet Activation**
- >> Units**
- >> Conservative Factor**
- >> Backlight Duration**



WARNINGS:

Making decompression dives without the proper preparation and training will place you in an unnecessarily dangerous situation.

Existing data for making planned decompression dives is limited, and virtually non-existent for repetitive decompression diving.

Decompression diving greatly increases your risk of decompression sickness.

Special training, equipment, and support are necessary for diving deeper than the maximum recommended sport diving depth limit(s).

NORM DIVE MODES

NO DECO DIVE TIME REMAINING (NDC)

NDC is the maximum amount of time that you can stay at your present Depth before entering a Decompression situation. It is calculated based on the amount of Nitrogen absorbed by hypothetical tissue compartments.

The rates each of these compartments absorb and release Nitrogen is mathematically modeled and compared against a maximum allowable Nitrogen level.

Whichever one is closest to this maximum is the controlling compartment for that Depth with its resulting value displayed (Fig. 49a) with the NO DEC icon and as the NBG (Fig. 49b).

As you ascend from Depth during a dive, the NBG segments will recede as control shifts to slower compartments.

This is a feature of the Decompression model that is the basis for multilevel diving, one of the most important advantages that the VOYAGER 2G dive computer offers.

OXYGEN ACCUMULATION

If FO2 was set for a numerical value (Nitrox), the O2BG (Fig. 49c) will add segments to represent oxygen accumulation for that dive, or 24 hour period, whichever amount is greater.

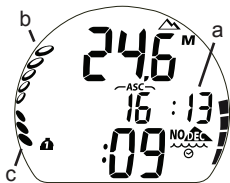


Fig. 49 - NORM DIVE MAIN

If O₂ reaches 100% of the allowed limit (300 OTU), the O₂ icon will replace NO DEC. High O₂ is described later.

ASCENT RATE INDICATOR (ASC)

The ASC shows how fast you are ascending. When you exceed the maximum recommended Ascent Rate for the depth you are at, all segments of the ASC and the rate value will flash (Fig. 50) until Ascent Rate is slowed below the alarm value.

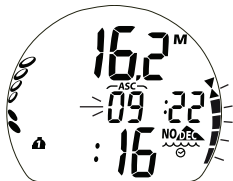


Fig. 50 - ASCENT TOO FAST

The Ascent Rate alarm and speeds are speeds, refer to page 17.

NO DECO DIVE MODE

When Wet Activation is set On, operation will enter Dive Mode when you descend to 5 FT (1.5 M) for 5 seconds, even if not yet activated. When Wet Activation is set Off, it will not enter Dive Mode unless it is activated first.

No Deco Main, information includes (Fig. 51) -

- > Altitude (mountain) icon, if EL 2 to 7 (above Sea level).
- > Current Depth with M (or FT) icon.
- > Ascent Rate value (MPM or FPM) with - ASC - icon, synchronized with the ASC, blank when not ascending.
- > Dive Time Remaining (hr:min) with NO DEC icon.
- > Elapsed Dive Time (hr:min) with wave/clock icon.
- > Gas 1 (or 2) icon, one in use.
- > NBG, O₂BG, ASC - if applicable.

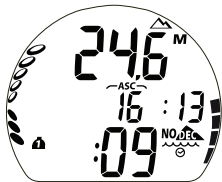


Fig. 51 - NO DECO MAIN



Fig. 52 - NO DECO ALT 1

- A (< 2 sec) - to access ALT 1.
- A (2 sec) - to access Deep Stop Preview, if activated.
- S (< 2 sec) - to acknowledge alarms.
- S (2 sec) - to activate the Backlight.
- M (2 sec) - to access Gas Switch Preview.

No Deco ALT 1, information includes (Fig. 52) -

- > Max Depth with M (or FT) and MAX icons.
- > Temperature with icon and graphic C (or F).
- > Time of Day (hr:min) with h (time) icon.

- A (< 2 sec) - to access ALT 2 if Nitrox, revert to Main if Air.
- After 5 sec - revert to Main if A is not pressed.
- S (2 sec) - to activate the Backlight.

No Deco ALT 2, information includes (Fig. 53) -

- > Graphic GA1 (or GA2), gas in use.
- > PO2 (ATA) value with graphic - PO2.
- > FO2 set for the Gas in use with %, O2, and Gas 1 (or 2) icons.

- A (< 2 sec) - to revert to Main.
- After 5 sec - revert to Main if A is not pressed.
- S (2 sec) - to activate the Backlight.



Fig. 53 - NO DECO ALT 2
(only if Nitrox)

ALT screens cannot be accessed during the time when an Alarm is sounding.

No Deco Deep Stop (DS)

On any No Deco dive in which Depth exceeds 24 M (80 FT), a Deep Stop Preview screen (Fig. 54) can be accessed that will display the graphic dSP (meaning Deep Stop Preview) and a recommended Stop Depth calculated to be 1/2 the Max Depth and a Stop Time of 2:00 (min:sec) with STOP and clock icons. It will revert to the Main after 5 seconds.

- The intent of this screen is to suggest that a Stop should be made as indicated to help reduce tissue nitrogen loading prior to final ascent.
- The Preview screen will not be available for viewing once you ascend above the calculated Stop Depth.

The Deep Stop is not required and although recommended, it does not have to be taken. There is no penalty if the Stop is ignored and ascent (or other activity) is continued.

DS (Deep Stop) Main, information includes (Fig. 55) -

- > Altitude (mountain) icon, if EL 2 to 7 (above Sea level).
- > Current Depth with M (or FT) icon.
- > Stop Depth (calculated M or FT) with STOP icon.
- > Stop (countdown) Time (min:sec) with clock (time) icon.
- > Gas 1 (or 2) icon, one in use.
- > NBG, O2BG - if applicable.



Fig. 54 - DS PREVIEW



Fig. 55 - DS MAIN



Fig. 56A - DS ALT 1



Fig. 56B - DS ALT 2



Fig. 56C - DS ALT 3

- A (< 2 sec) - to access ALTs 1, 2, 3 (Fig. 56A, B, C).
- S (2 sec) - to activate the Backlight.
- M (2 sec) - to access Gas Switch Preview.

When the countdown reaches 0:00, the No Deco Main will be displayed and the DS feature will be disabled for the remainder of that dive.

In the event that you descend 3 M (10 FT) below, or ascend 3 M (10 FT) above the Stop Depth, for more than 10 seconds during the countdown, the No Deco Main will be displayed and the DS will be disabled for the remainder of that dive.

If you return to within the +/- 3 M (10 FT) range during the 10 seconds, the DS Main will reappear with the countdown still in progress.

The DS feature will be disabled, and its screens not displayed, for the remainder of that dive, if you enter Deco or High O2 (\Rightarrow 80%), or descend deeper than 63 M (190 FT).

During High PO2 (\Rightarrow Alarm setting), the DS screen information will be replaced with High PO2 information.

No Deco Safety Stop (SS)

Upon ascending to 6 M (20 FT) for 1 second on No Deco dives in which Depth exceeded 9 M (30 FT), a Safety Stop screen will appear (if set On) displaying a recommended Stop at 4,5 M (15 FT) with a Timer that counts down from 3:00 to :00 (min:sec).

The Safety Stop will be displayed until the countdown times out, or you descend below 9 M (30 FT) during the countdown, or you surface during the countdown.

*There is no Penalty for surfacing prior to completing the Safety Stop.
There is no Preview screen associated with the Safety Stop.*

SS (Safety Stop) Main, information includes (Fig. 57) -

- > Altitude (mountain) icon, if EL 2 to 7 (above Sea level).
 - > Current Depth with M (or FT) icon.
 - > Stop Depth (4,5 M or 15 FT) with STOP icon.
 - > Stop (countdown) Time (min:sec) with clock (time) icon.
 - > Gas 1 (or 2) icon, one in use.
 - > NBG, O2BG - if applicable.
-
- A (< 2 sec) - to access ALTs 1, 2, 3 (similar to DS ALTs).
 - S (2 sec) - to activate the Backlight.
 - M (2 sec) - to access Gas Switch Preview.

When the countdown reaches :00, the No Deco Main will be displayed and the DS feature will be disabled for the remainder of that dive.

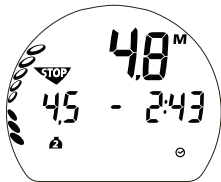


Fig. 57 - SS MAIN

In the event that you descend below 9 M (30 FT) for more than 10 seconds during the countdown or the countdown reaches :00, the No Deco Main will be displayed. The SS Main will reappear upon ascent again to 6 M (20 FT).

If you enter Deco during the dive, the SS will be disabled for the remainder of that dive.

During High PO₂ (=> Alarm setting), the SS screen information will be replaced with High PO₂ information.

CAUTIONARY MODES

DECOMPRESSION

Decompression mode activates when theoretical No Decompression time and depth limits (NDLs) are exceeded.

Upon Entry into Decompression, the Audible will sound until acknowledged or for 10 seconds during which the STOP icon, DEC icon, and full NBG will flash to alert you.

Upon entry into Deco, the Deep Stop and Safety Stop features are disabled for the remainder of that dive, even when the Deco obligation is complete and No Deco status is regained.

Deco Entry, information includes (Fig. 58):

- > Altitude (mountain) icon, only if EL 2 to 7.
 - > Current Depth with M (or FT) icon.
 - > Stop Depth (M or FT), with STOP icon flashing.
 - > Ascent Rate (MPM or FPM) with - ASC - icon, if ascending.
 - > Stop Time (hr:min) with DEC icon (flashing) and clock (time) icon.
 - > Gas 1 (or 2) icon, one in use.
 - > Full NBG flashing; O2BG and ASC - if applicable.
- A (< 2 sec) - to acknowledge/silence the audible.
 - A (< 2 sec) - to access ALTs 1, 2, 3 (similar to DS ALTs).
 - S (2 sec) - to activate the Backlight.
 - M (2 sec) - to access Gas Switch Preview.

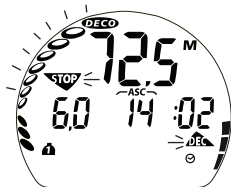


Fig. 58 - DECO ENTRY

To fulfill your deco obligation, you should make a safe controlled ascent to a depth slightly deeper than the Stop Depth indicated and decompress for the Time indicated.

The amount of decompression credit time that you receive is dependent on Depth, with slightly less credit given the deeper you are below the Stop Depth indicated.

Deco Stop Main, information includes (Fig. 59) -

- > Altitude (mountain) icon, only if EL 2 to 7.
- > Current Depth with M (or FT) icon.
- > Stop Depth (M or FT), with STOP icon.
- > Stop Time (hr:min) with DEC and clock (time) icons.
- > Gas 1 (or 2) icon, one in use.
- > Full NBG, and O2BG - if applicable.

- A (< 2 sec) - to access ALT 1.
- S (2 sec) - to activate the Backlight.
- M (2 sec) - to access Gas Switch Preview.

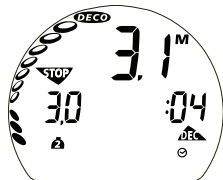


Fig. 59 - DECO STOP MAIN

Deco Stop Alt 1, information includes (Fig. 60) -

- > Current Depth with M (or FT) icon.
- > Total Ascent Time (hr:min)*, with SURF icon.
- > Elapsed Dive Time (hr:min) with wave/clock icon.

- A (< 2 sec) - to access ALTs 2, 3 (similar to DS ALTs).
- S (2 sec) - to activate the Backlight.

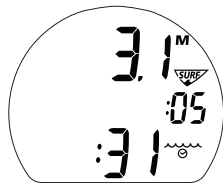


Fig. 60 - DECO STOP ALT 1

**Total Ascent Time = time required for all deco stops plus ascent to surface.*

CONDITIONAL VIOLATION (CV)

If you ascend shallower than the calculated Deco Stop Depth, the Audible will sound, and no off gassing credit will be given, until you descend below the Stop Depth.

If you descend below the required Stop Depth before 5 minutes have elapsed, operation will continue to function in Deco and off gassing credit will resume.

If you are on the surface when the 5 minute CV time expires, the full NBG will flash and operation will revert to Violation Gauge Mode (VGM) until 24 contiguous hours elapse without a dive.

CV Main, information includes (Fig. 61) -

- > Altitude (mountain) icon, only if EL 2 to 7.
 - > Current Depth with M (or FT) icon.
 - > Stop Depth (M or FT), with STOP icon (flashing).
 - > Ascent Rate (MPM or FPM) with - ASC - icon, if ascending.
 - > Stop Time (hr:min) with DEC icon (flashing) and clock (time) icon.
 - > Gas 1 (or 2) icon, one in use.
 - > Full NBG (flashing until audible is silenced); and O2BG, ASC - if applicable.
-
- A (< 2 sec) - to access ALTs 1, 2, 3 (similar to Deco).
 - S (2 sec) - to activate the Backlight.
 - M (2 sec) - to access Gas Switch Preview.

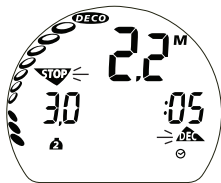


Fig. 61 - CV MAIN

Upon entry into the following Violation modes, the Audible will sound, even if set Off. When these events occur, the alarm cannot be acknowledged/silenced by pressing S.

DELAYED VIOLATION 1 (DV1)

If you remain above a required Deco Stop Depth more than 5 minutes, operation will enter DV1 which is a continuation of CV.

The audible will sound for 10 seconds, and the full NBG will flash until you descend below the required Stop Depth.

DV1 Main, information includes (Fig. 62) -

- > Altitude (mountain) icon, only if EL 2 to 7.
 - > Current Depth with M (or FT) icon.
 - > Stop Depth (M or FT), with STOP icon (flashing).
 - > Ascent Rate (MPM or FPM) with - ASC - icon, if ascending.
 - > Stop Time (hr:min) with DEC icon (flashing) and clock (time) icon.
 - > Gas 1 (or 2) icon, one in use.
 - > Full NBG (flashing); and O2BG, ASC - if applicable.
-
- A (< 2 sec) - to access ALTs 1, 2, 3 (similar to Deco).
 - S (2 sec) - to activate the Backlight.
 - M (2 sec) - to access Gas Switch Preview.

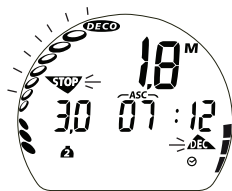


Fig. 62 - DV1 MAIN

DELAYED VIOLATION 2 (DV2)

If the Decompression obligation requires a Stop Depth between 18 and 21 M (60 and 70 FT), the STOP icon, DEC icon, and full NBG will flash until the required Stop Depth is 18 M (60 FT).

When this occurs, you must make a controlled ascent to just deeper than, and stay as close as possible to, 18 M (60 FT) until the Deco Stop Depth indicates 15,0 M (50 FT), etc., then you can ascend to those Stop Depths and continue decompressing.

DV2 Main, information includes (Fig. 63) -

- > Altitude (mountain) icon, only if EL 2 to 7.
 - > Current Depth with M (or FT) icon.
 - > Stop Depth (18,0 M or 60 FT), with STOP icon (flashing).
 - > Ascent Rate (MPM or FPM) with - ASC - icon, if ascending.
 - > Stop Time (hr:min) with DEC icon (flashing) and clock (time) icon.
 - > Gas 1 (or 2) icon, one in use.
 - > Full NBG (flashing); and O2BG, ASC - if applicable.
- A (< 2 sec) - to access ALTs 1, 2, 3 (similar to Deco).
 - S (2 sec) - to activate the Backlight.
 - M (2 sec) - to access Gas Switch Preview.

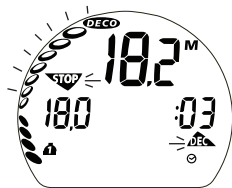


Fig. 63 - DV2 MAIN

DELAYED VIOLATION #3 (DV3)

If you descend deeper than the MOD (Max Operating Depth) of 120 M (400 FT), the Audible will sound for 10 seconds, and Current Depth will display 3 dashes (- - -) flashing signifying that you are out of range (deeper than the unit's ability to predict ascents or accurately perform calculations). Max Depth on the ALT 1 screen will only flash 3 dashes (- - -).

Upon ascending above the MOD, Current Depth will be re-stored. Max Depth will display 3 dashes for the remainder of that dive. Also, the Memo for that dive will display 3 dashes.

DV3 Main, information includes (Fig. 64) -

- > Altitude (mountain) icon, if EL 2 to 7 (above Sea level).
 - > Current Depth as dashes (- - -) flashing with M (or FT) icon.
 - > Ascent Rate value with - ASC - icon, if ascending.
 - > Dive Time Remaining as dashes (: - -) with NO DEC icon.
 - > Elapsed Dive Time (hr:min) with wave/clock icon.
 - > Gas 1 (or 2) icon, one in use.
 - > NBG, O2BG, ASC - if applicable.
-
- A (< 2 sec) - to access ALTs 1, 2 (similar to No Deco).
 - S (2 sec) - to activate the Backlight.
 - M (2 sec) - to access Gas Switch Preview.

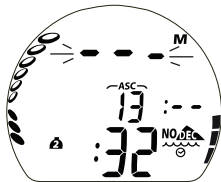


Fig. 64 - DV3 MAIN

VIOLATION GAUGE MODE (VGM)

If calculations require a Deco Stop Depth greater than 21 M (70 FT), or if Deco is entered while operating in FREE Mode (described later), operation will enter Violation Gauge Mode (VGM) for the remainder of that dive and for 24 hours after surfacing.

VGM turns the VOYAGER 2G into a digital instrument without any nitrogen or oxygen calculations or monitoring functions or displayed information until 24 contiguous hours elapse on the surface with no dives.

VGM Main, information includes (Fig. 65) -

- > Altitude (mountain) icon, if EL 2 to 7 (above Sea level).
- > Current Depth with M (or FT) icon.
- > Ascent Rate value with - ASC - icon, if ascending.
- > Graphic UP (flashing) in place of Dive Time Remaining.
- > Elapsed Dive Time (hr:min) with wave/clock icon.
- > Gas 1 (or 2) icon, one in use.
- > Full N2BG and O2BG (flashing), ASC - if applicable.

- A (< 2 sec) - to access ALTs 1, 2 (similar to No Deco).
- S (2 sec) - to activate the Backlight.
- M (2 sec) - to access Gas Switch Preview.

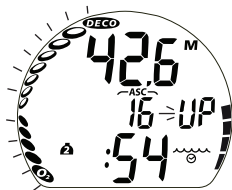


Fig. 65 - VGM MAIN

The VOYAGER 2G will also enter VGM 5 minutes surfacing from a dive in which a Delayed Violation (1, 2, or 3) occurred.

Once on the surface, VGM blocks access to the Set F, Plan, Fly, and Sat features/screens.

The timer that appears when you access Fly is to inform you of time remaining before normal operation can resume with full features and functions.

If a dive is made within a 24 hour period, a full 24 hour surface interval must then be served before all functions are restored.

VGM Main (on surface), information includes (Fig. 66) -

- > Graphic Vio alternating with NOR (or GAU).
- > Graphic No - with number of that dive.
- > Surface Interval Time (hr:min) with clock/wave icon.
- > Gas 1 icon, default 10 minutes after a dive.
- > Battery icon if a Low Battery condition exists.
- > Full N2BG and O2BG (flashing first 10 min, then removed).

- A (< 2 sec) - to access SURF ALTs.
- A (2 sec) - to access Memo Mode, then again History.
- S (2 sec) - to activate the Backlight.
- A & S (2 sec) - to access Set Modes (A, U, T).
- M (2 sec) - to access other OP modes.



Fig. 66 - VGM MAIN
(on surface)



Fig. 67 - PO2 WARNING
(during audible)

HIGH PO2 (NORM only)

Warning >> at Alarm value set minus 0,20 (1,00 to 1,40).

Alarm >> at value set, except in Deco then only at 1,60 .

When PO2 (partial pressure of oxygen) increases to the Warning level, the audible will sound during which the PO2 value and graphic will flash (Fig. 67).

- S (< 2 sec) - to acknowledge/silence alarm.
- > PO2 will remain on solid until PO2 decreases below the Warning level.

If PO2 increases to the Alarm level, the audible will sound again and the PO2 value and graphic will flash.

PO2 Alarm Main (No Deco), information includes (Fig. 68) -

- > Current Depth with M (or FT) icon.
- > PO2 value (ATA) with graphic PO2, flashing until < value set, then solid.
- > Gas 1 (or 2) icon, one is use.
- > NBG, ASC - if applicable.
- > O2BG, with O2 segment flashing if PO2 => 1,60.



Fig. 68 - PO2 ALARM MAIN
(No Deco, during audible)

- A (< 2 sec) - to access ALTs (similar to No Deco).
- S (< 2 sec) - to activate Backlight.
- M (2 sec) - to access Gas Switching.

High PO2 during Deco (Fig. 69)

The PO2 Alarm setting does not apply when in Deco.

- > If PO2 reaches 1,60 while at a Deco Stop, the PO2 value (1,60) with graphic will alternate with Deco Stop Depth/Time and Elapsed Dive Time once each minute*.

**PO2 flashing for 10 seconds, Deco Stop Depth/Time on for 50 seconds until PO2 decreases below 1,60, then Deco only (no PO2).*

HIGH O2 (NORM only)

Warning >> at 80 to 99% (=> 240 OTU).

Alarm >> at 100% (= 300 OTU).

When O2 increases to the Warning Level; the audible will sound, and the O2 icon will appear flashing (Fig. 70) until O2 decreases below 80% after surfacing or by a gas switch.

If O2 reaches the Alarm level; the audible will sound during which the full O2BG will flash, the graphic UP will flash in addition to the O2 icon (Fig. 71) until O2 decreases below 100% after surfacing or by a gas switch.

- S (< 2 sec) - to acknowledge/silence alarms.
- S (2 sec) - to activate the Backlight.
- A (< 2 sec) - to access ALTs (similar to No Deco or Deco).
- M (2 sec) - to access Gas Switching.



Fig. 69 - PO2 ALARM MAIN (Deco)



Fig. 70 - HIGH O2 WARNING



Fig. 71 - HIGH O2 ALARM (during audible)

If an O2 Alarm (100%) occurs while a High PO2 condition is present (warning or alarm level), or while in Deco, the O2 alarm displays and operations will override those for High PO2 and/or Deco.

High O2 on Surface

Upon ascent to 0,6 M (2 FT) for 1 second (surfacing), the Dive Main screen is displayed for 10 minutes with access to the Dive ALTs allowed.

- If O2 is 100%, the full O2BG and O2 icon will flash for the first 5 minutes, then be displayed solid until O2 is < 100%, at which time the O2BG will recede and the O2 icon will remain on until O2 decreases below 80%.
- If you surface due to 100% O2 without having completed a Deco obligation, then operation will enter VGM.
- Access to GAUG and FREE modes is blocked until O2 decreases below 100%.



WARNINGS AND SAFETY RECOMMENDATIONS

- The percentage of oxygen (FO2) in the Nitrox mix being used must be 'set before each nitrox dive', unless the FO2 50% Default feature is set OFF.
- Plan Mode provides predicted times for subsequent dives. Depending on cylinder size, breathing gas consumption, and oxygen accumulation, you may have less time available than indicated because of breathing gas quantity or other limitations.
- Until it has shut itself off, you must not use the VOYAGER 2G at a different Altitude than the Altitude at which it was activated. Doing so will result in an error equal to the difference in barometric pressure, and possibly a false dive mode with erroneous data.
- To provide proper Altitude compensation, the VOYAGER 2G must be manually activated at the new altitude. Dive computers, such as the VOYAGER 2G cannot sense changes in barometric pressure if activated by immersion in water at higher Altitudes.
- Use the Nitrogen Bar Graph as a visual reference to provide a greater margin of protection between you and the No Decompression Limits.
- Every effort should be made to keep each of the Bar Graphs in the normal zone throughout your dives to reduce your risk of exposure to decompression sickness, oxygen toxicity, and the effects of excessive ascent rates.

SWITCHING GAS MIXES

SWITCHING GAS MIXES (NORM only)

During NORM Dives, the FO₂ calculations/displays can be switched from Gas 1 to 2.

- > Switching can only to be performed during the time that a Gas Switch Preview screen is being displayed.
- > Switching Gas cannot be performed while on the surface.
- > Access to Gas Switching screens can only be accomplished during the time that a NORM Dive Main screen is being displayed and cannot be performed during the time that an alarm is sounding.
- > Every dive begins with Gas 1 and 10 minutes after surfacing dive, operation defaults to the Gas 1 FO₂.

If a Switch to a new Gas mix would expose the diver to a prohibitive PO₂ level of 1,60 ATA or greater, the audible will sound during which the graphics do - not - CHANG GAS will flash on the display (Fig. 72).



Fig. 72 - DO NOT SWITCH
GAS ALARM

Due to the possibility that sufficient air may not be available in the Switch From tank to complete the dive, the switch to the prohibitive mix (FO₂) is still allowed.

If the switch is made to the prohibitive mix, the High PO₂ Alarm will activate. If in Deco, PO₂ will flash until it decreases below 1,60.

To access the Gas Switch Preview screens, while viewing a NORM Dive Main screen, and switch gas >>

- M (2 sec) - to view the Gas 1 Preview screen.
- M (2 sec), while Gas 1 Preview is displayed - to view the Gas 2 Preview screen.
- M (2 sec) - to activate the Backlight.

Gas Switch Preview, information includes (Fig. 73A, B) -

- > Graphic GA 1 (or 2) with Gas icon, gas #.
 - > Graphic Air, or FO2 value set with % and O2 icons.
-
- S (< 2 sec), while viewing a Preview screen - to Switch to that Gas (after a 3 sec delay) changing calculations and displayed information to the new Gas.

After 10 sec, operation will revert to the NORM Main if no button is pressed.

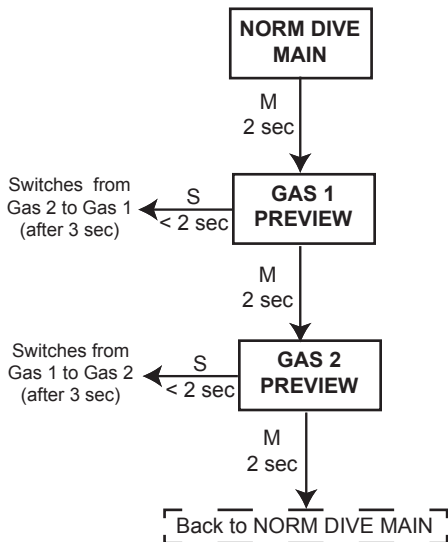


Fig. 73A - GAS 1 PREVIEW
(FO2 set for Air)



Fig. 73B - GAS 2 PREVIEW
(FO2 set for Nitrox)

GAS SWITCH ROUTINE



NORM POST DIVE MODES

FIRST 10 MINUTES ON SURFACE

When you ascend to 0,6 M (2 FT) for 1 second, the Surface Main screen will be displayed.

If you descend during the first 10 minutes after surfacing, time underwater will be considered a continuation of that dive.

The time at the surface (if less than 10 minutes) will not be added as Dive Time.

SURF MAIN, information includes (Fig. 74):

- > Graphic NOR.
- > Altitude (mountain) icon, only if at EL - 2 to EL - 7.
- > Number of that dive with No - icon.
- > Surface Interval Time (:min) with clock/wave icon.
- > Gas 1 (or 2) icon, one in use.
- > Battery icon if a Low Battery condition exists.
- > NBG.
- > O2BG, if a Nitrox dive.

- A (< 2 sec) - to access ALTs.
- A (2 sec) - to access Memo then Historical modes.
- S (2 sec) - to activate the Backlight.



Fig. 74 - NORM SURF MAIN
(during first 10 min)

AFTER 10 MINUTES ON SURFACE

Once 10 minutes have elapsed, the Surface Interval time colon will stop flashing indicating that the dive is completed, and a subsequent descent will be considered a new dive.

- > Other modes (e.g., Plan, Fly, Sat, Set) are accessible.
- > Adjusted time limits displayed in Plan will be based on residual nitrogen and accumulated oxygen calculated to be remaining from the previous dives.
- > The Sat countdown timer provides calculated time for tissue desaturation at sea level.
- > If a Violation occurred during the dive, the Sat screen will not be displayed.

Once 2 hours have elapsed after surfacing from a dive, only the Fly and Sat screens will be displayed (Fig. 75A, B), alternating until FLY time counts down to 0:00 (hr:min), then the unit will shut off. To access other modes/screens, press any button to activate the SURF Main.



Fig. 75A - FLY TIME
(2 hours after dive)



Fig. 75B - SAT TIME
(2 hours after dive)

UPLOADING SETTINGS AND DOWNLOADING DATA

The VOYAGER 2G is configured with a Data Port that enables it to be connected to a PC USB port using a special Interface Cable that is available as an optional accessory.

The USB Driver required for the interface system is available of the interface system CD.

The settings upload portion of the PC program can be used to set/change alarms, utilities, and time/date. Gas 1 and 2 FO2 settings must be entered using the control buttons.

Information available for retrieval (Download) from the VOYAGER 2G to the PC Download portion of the program includes dive number, surface interval time, maximum depth, elapsed dive time, start date, start time, lowest temperature underwater, sampling rate, dive profile, settings, NBG, O2BG, and Gas Switching events.

The VOYAGER 2G checks for the presence of an interface device connection to the Data Port once every second while in Surface mode. Checks are not made if the Wet Activation contacts are wet. Upon sensing an interface connection, the requesting device (PC) connects to the VOYAGER 2G and is prepared for Upload of settings or Download of data which are then initiated using the PC program.

Prior to attempting to Download data from your VOYAGER 2G or Upload settings to it, review the Help section of the interface program. Recommended is to print those sections of Help that you consider appropriate for your Interface activities.

GAUGE OPERATING MODE



Fig. 76 - GAUG SURF MAIN
(upon access from NORM)

DIGITAL GAUGE MODE (GAUG)

When GAUG is selected as the operating mode, the VOYAGER 2G will operate as a Digital Depth Gauge/Timer without performing nitrogen and oxygen calculations.

- M (2 sec), while viewing NORM SURF Main - to access GAUG SURF main, with GAU flashing (Fig. 76).
- M (< 2 sec) - to select GAUG as the operating dive mode. GAU stops flashing and Gauge Mode is selected.
- M (2 sec), if no GAUG dive has been conducted - to access FREE SURF Main, allowing it to be selected.

NORM SURF >> GAUG SURF >> FREE SURF

GAUG SURF MAIN, information includes (Fig. 77) -

- > Graphic GAU.
- > Altitude (mountain) icon, only if at EL - 2 to EL - 7.
- > Number of that dive with No - icon, 0 if no dive yet.
- > Surface Interval Time (hr:min) with clock/wave icon.
- > Battery icon if a Low Battery condition exists.



Fig. 77 - GAUG SURF MAIN
(after dive 3)

- A (< 2 sec) - to access ALTs (similar to those for NORM).
- A (2 sec) - to access Memo then Historical modes.
- S (< 2 sec) - to access FLY, after dives.
- A & S (2 sec) - to access Set modes (A, U, T).
- S (2 sec) - to activate the Backlight.

Upon descending to 1,5 M (5 FT) for 5 seconds, the VOYAGER 2G will enter GAUG Dive Mode.

Once a dive is made in Digital Gauge Mode, you must wait 24 contiguous hours after surfacing before the VOYAGER 2G resets and will operate as an Air or Nitrox dive computer in NORM Mode or in FREE Dive Mode.

GAUG DIVE MAIN, information includes (Fig. 78) -

- > Altitude (mountain) icon, if EL 2 to 7 (above Sea level).
- > Current Depth with M (or FT) icon.
- > Ascent Rate value (MPM or FPM) with - ASC - icon, synchronized with the ASC, blank when not ascending.
- > Graphic GA (GAUG mode).
- > Elapsed Dive Time (hr:min) with wave/clock icon.
- > ASC - if applicable.

- A (< 2 sec) - to access ALT.
- S (< 2 sec) - to acknowledge alarms.
- S (2 sec) - to activate the Backlight.

GAUG DIVE ALT, information includes (Fig. 79) -

- > Max Depth with M (or FT) and MAX icons.
- > Temperature with icon and graphic C (or F).
- > Time of Day (hr:min) with h (time) icon.



Fig. 78 - GAUG DIVE MAIN

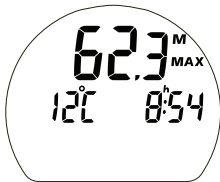


Fig. 79 - GAUG DIVE ALT

- A (< 2 sec) - to revert to Main.
- After 5 sec - revert to Main if A is not pressed.
- S (2 sec) - to activate the Backlight.

If you descend deeper than 120 M (400 FT), operation will enter Delayed Violation 3. The Audible will sound for 10 seconds, and Current Depth will display 3 dashes (- - -) flashing. Max Depth on the ALT screen will only flash 3 dashes (- - -).

Upon ascending above 120 M (400 FT), Current Depth will be restored. Max Depth will display 3 dashes for the remainder of that dive. Also, the Memo for that dive will display 3 dashes.

GAUG DV3 MAIN, information includes (Fig. 80) -

- > Altitude (mountain) icon, if EL 2 to 7 (above Sea level).
- > Current Depth as dashes (- - -) flashing with M (or FT) icon.
- > Ascent Rate value (MPM or FPM) with - ASC - icon, synchronized with the ASC, blank when not ascending.
- > Graphic GA (GAUG mode).
- > Elapsed Dive Time (hr:min) with wave/clock icon.
- > ASC - if applicable.



Fig. 80 - GAUG DV3 MAIN

- A (< 2 sec) - to access ALT.
- S (< 2 sec) - to acknowledge alarm.
- S (2 sec) - to activate the Backlight.

FREE DIVE OPERATING MODE



Fig. 81 - FREE SURF MAIN
(upon access from GAUG)

FREE DIVE MODE

When Free Dive Mode is selected as the operating mode, Nitrogen calculations are based on a default FO₂ of Air and the amount remaining during 24 hours is carried over between FREE and NORM modes.

- M (2 sec), while viewing GAUG SURF Main - to access FREE SURF main, with FRE flashing (Fig. 81).
- M (< 2 sec) - to select FREE as the operating dive mode. FRE stops flashing and Free Mode is selected.
- M (2 sec) - to access NORM SURF Main, allowing it to be selected.

NORM SURF >> GAUG SURF >> FREE SURF



Fig. 82 - FREE SURF MAIN
(after dive 8)

FREE SURF MAIN, information includes (Fig. 82) -

- > Graphic FRE.
 - > Altitude (mountain) icon, only if at EL - 2 to EL - 7.
 - > Dive number with No - icon, total number of dives during that repetitive set (series), 0 if no dive yet.
 - > Surface Interval (min:sec to 9:59, then min only from 10 - to 59 - , then 3 dashes) with clock/wave icon.
 - > Battery icon if a Low Battery condition exists.
- A (< 2 sec) - to access ALT 1.
 - A (2 sec) - to access FREE CDT Status, then Set CDT.

- A & S (2 sec) - to access Set EDT Alarm, then DAs.
- S (2 sec) - to activate the Backlight.

FREE SURF ALT 1, information includes (Fig. 83) -

- > Max Depth of the last dive with M (or FT) and MAX icons.
- > Graphic LAsT (meaning data is for most recent dive).
- > Elapsed Dive Time (min:sec) of the last dive conducted with wave/clock icons.



Fig. 83 - FREE SURF ALT 1

- A (< 2 sec) - to access ALT 2.
- Revert to Main after 5 sec, if A is not pressed.
- S (2 sec) - to activate the Backlight.

FREE SURF ALT 2, information includes (Fig. 84) -

- > Day of the week graphic.
- > Temperature with icon and graphic C (or M).
- > Time of Day (hr:min) with h (time) icon.

- Revert to Main after 5 sec, or if A is pressed.
- S (2 sec) - to activate the Backlight.



Fig. 84 - FREE SURF ALT 2



Fig. 84A - CDT STATUS
(Off, not set)



Fig. 84B - CDT STATUS
(On, running)

CDT (Countdown Timer)

While on the surface, the CDT can be set, started, and stopped. Once set and started, it continues to run in the background when a dive is started and becomes available as an ALT display.

- A (2 sec), while viewing SURF Main - to access CDT Status.

CDT Status, information includes (Fig. 84):

- > Graphics Cdt with OFF (or ON) flashing.
- > Countdown Time remaining (:min only from :59 to :10, then min:sec from 9:59 to 0:00), or time set and ready to start, or 0:00 if no time set or countdown is complete.

**If ON with time running or complete, the colon will be flashing.*

- S (< 2 sec) - to toggle Status between OFF and ON*.

**A toggle from OFF to ON will start the countdown.*

- A & S (2 sec), while OFF - to access Set CDT.
- S (2 sec) - to activate the Backlight.
- A (< 2 sec) - to revert to SURF Main.
- Revert to SURF Main after 2 min, if no button is pressed.

The CDT will run in the background, while on the surface and during dives, until it counts down to 0:00, or it is turned OFF.

When a set Countdown Time reaches 0:00, the audible will sound during which time the graphics Cdt OFF with 0:00 will be displayed flashing on the Surface or Dive Main.

Set CDT, information includes (Fig. 85):

- > Graphics Cdt and SEt - with alarm ((A)) icon.
 - > CDT (min:sec) with Minute digits flashing.
- S (hold) - to scroll through Minute settings at a rate of 8 per second from 0: to 59: in increments of 1: (min).
 - S (< 2 sec) - to step through Minute settings one at a time.
 - A (< 2 sec) - to save the Minute setting and flash the Seconds digits.
 - S (hold) - to scroll through Seconds setting at a rate of 8 per second from :00 to :59 in increments of :01 (sec).
 - S (< 2 sec) - to step through settings one at a time.
 - A (< 2 sec) - to save the CDT setting and revert to CDT Status displaying the time set and OFF flashing.



Fig. 85 - SET CDT

EDT (ELAPSED DIVE TIME) ALARM

Factory set for a fixed 30 seconds, the EDT alarm sounds the audible every 30 seconds while underwater in FREE Dive Mode.

Set EDT Alarm, information includes (Fig. 86):

- > Graphic Edt with :30 (sec), wave/clock, and ((A)) icons.
 - > OFF (or ON) flashing.
- S (< 2 sec) - to toggle between ON and OFF.
 - A (< 2 sec) - to save the setting and access Set DA1.
 - M (2 sec) - to save the setting and revert to SURF Main.

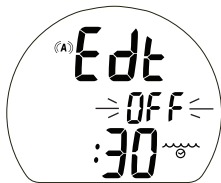


Fig. 86 - SET EDT ALARM



Fig. 87A - SET DA
(On/Off)



Fig. 87B - SET DA
(depth value)

DEPTH ALARMS (DAs)

There are 3 Free Depth Alarms (DAs) that can be set at progressively deeper depths*.

**DA2 must be deeper than DA1 and DA3 must be deeper than DA2.*

Set DA 1 Alarm, information includes (Fig. 87A, B):

- > Depth value (solid when ON/OFF are flashing, then flashing if ON is selected) with ((A)), M (or FT), and MAX icons.
- > Graphics OFF (or ON) flashing and dA1.
- S (< 2 sec) - to toggle between OFF and ON.
- A (< 2 sec) - to save the setting.
 - > *If OFF is saved, Set DA2 and 3 are bypassed and operation reverts to SURF Main.*
 - > *If ON is saved, the Depth digits flash.*
- S (hold) - to scroll through Depth values at a rate of 8 per second from 10 to 100 M (30 to 330 FT) in increments of 1 M (10 FT).
- S (< 2 sec) - to step through settings one at a time.
- A (< 2 sec) - to save the setting and access Set DA2.
- A & S (2 sec) - to save the setting and revert to SURF Main.

Set DA 2 and DA 3 are similar with Depth values beginning one increment higher (deeper) than the previous selection set.

Upon descending to 1,5 M (5 FT) for 5 seconds, operation will enter Free Dive Mode.

Free Dive Main, information includes (Fig. 88) -

- > Current Depth with M (or FT) icon.
- > NDC Time (hr:min) with NO DEC icon.
- > Elapsed Dive Time (min:sec) with wave/clock icon.
- > NBG, if any.

- A (< 2 sec) - to access ALT 1.
- S (2 sec) - to activate the Backlight.

Free Dive ALT 1, information includes (Fig. 89) -

- > Max Depth with M (or FT) and MAX icons.
 - > Temperature with icon and graphic C (or F).
 - > Time of Day with h (time) icon.
- A (< 2 sec) - to access ALT 2.
 - Revert to the Main after 5 sec, if A is not pressed.
 - S (2 sec) - to activate the Backlight.



Fig. 88 - FREE DIVE MAIN



Fig. 89 - FREE DIVE ALT 1



Fig. 90 - FREE DIVE ALT 2
(On, running)

Free Dive ALT 2, information includes (Fig. 90) -

- > Graphics Cdt, and ON flashing.
- > CD Time (min:sec) with the colon flashing and clock icon, if ON and a CD is in progress; OFF and 0:00 with the colon flashing if it was running and no time remains. If OFF, the CD Time previously set will be displayed with the colon solid, indicating that it is set and ready to Start.

- S (< 2 sec) - to toggle ON/OFF (Start/Stop).
- A (< 2 sec) - to revert to Main.
- Revert to the Main after 10 sec, if A is not pressed.
- S (2 sec) - to activate the Backlight.

FREE DIVE ALARMS

Free Dive alarms sound 3 short beeps (1 or 3 times) as an indication that an event is occurring and as a reminder to view the display to identify an event.

As the audible sounds, a graphic identifying the event will flash.

Free Dive alarms are separate and unaffected by NORM/GAUG mode alarm settings, and the Alarms that occur in those modes are separate and unaffected by Free Dive alarms.

Free CDT Alarm

When the Free CDT decreases to 0:00 (min:sec), 3 short beeps will sound 3 times during which the graphic Cdt OFF and Time (as 0:00) will flash (Fig. 91), then the Main will be restored.

Free Depth Alarms

When Depth reaches the Alarm value set, 3 short beeps will sound 3 times during which the Depth digits and graphic dA1 will flash (Fig. 92), then the Main will be restored.

The audible and flashing will be repeated when Depth reaches the DA2 and DA3 settings, if set On.

If Ascent is made above a Depth Alarm setting and then a descent is made below it, the respective alarm (DA) will reset and sound again.

Free EDT Alarm

When the Free EDT Alarm is set On*, 3 short beeps will sound during which the graphic Edt and EDT digits will flash (Fig. 93), then the Main will be restored.

**The alarm is factory set to repeat every 30 seconds, when it is set On prior to the dive.*



Fig. 91 - FREE CDT ALARM

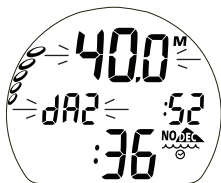


Fig. 92 - FREE DA



Fig. 93 - FREE EDT ALARM



Fig. 94 - FREE NIBG ALARM
(during audible)

Free NiBG Alarm

While operating in Free Dive mode, residual Nitrogen remaining from the Free Dives and any previous NORM SCUBA Dives conducted within 24 hours is displayed as the NiBG.

When Nitrogen loading increases to the Caution level, 3 short beeps will sound 3 times; and 7 NiBG No Deco segments and the graphic NibG will be displayed (flashing) (Fig. 94).

After the beeps, the Main will be restored with the NiBG flashing until it recedes to 6 segments or 10 minutes on the surface.

In the event that Nitrogen loading increases to the Deco level, operation will enter Violation Gauge Mode for 24 hours.

Entry into Deco (Violation)

Upon entry into Deco, 3 short beeps will sound 3 times, the full NiBG (all 8 segments) together with the graphics GoUP - Viol will be displayed flashing (Fig. 95).

Upon surfacing, the graphic will be removed, the NiBG continuing to flash until it recedes to 6 segments or after 10 minutes at which time operation will enter Violation Gauge Mode for 24 hours. The graphic VIO will then alternate with FRE for 24 hours during which operation will lock into Violation Gauge Mode blocking access to NORM and GAUG modes.



Fig. 95 - FREE VIOLATION
(entry into Deco)

ADDITIONAL INFORMATION PERTAINING TO FREE DIVE MODE

Although breathing apparatus is not utilized for Free Dive activities, nitrogen tissue loading remains a factor. Nitrogen loading is calculated based upon a fixed FO₂ of Air. Since a user has the option of alternating between NORM (SCUBA) and Free Dive activities within a 24 hour period, nitrogen calculations and the displayed value of NDC Time are carried over from one operating mode to the other, which permits the user to maintain awareness of nitrogen absorption and off gassing status.

The mathematical model currently used in the VOYAGER 2G is based on no decompression/decompression multilevel repetitive dive schedules. This algorithm does not take into account the physiological changes associated with the high pressures that competitive type Free diving can expose a diver to.



WARNINGS:

- **Ensure that you know which Operating Mode is selected (NORM, GAUG, or FREE) prior to commencing any dive.**
- **Conducting Free dives within a 24 hour period after conducting SCUBA dives, combined with the effects of multiple rapid Free Dive ascents, increases your risk of decompression sickness. Such activities may result in accelerated entry into decompression which could cause serious injury or death.**
- **Combining competitive type Free dive activities that involve multiple descents/ascents with activities utilizing SCUBA during the same 24 hour period is not recommended. Presently, there is no data relating to such activities.**
- **It is highly recommended that anyone planning to become involved in competitive type Free Dive activities obtain proper instruction and training from a recognized Free Diving trainer. It is imperative that the physiological affects be understood and the diver is physically prepared.**

RESPONSIBLE COMPUTER DIVING

- **Plan each dive, and dive your plan.** The VOYAGER 2G was not designed to make decisions for you, only to provide you with the information you need to make responsible decisions for yourself. This begins with a dive Plan that will help you avoid a low air or decompression situation.
- **Do not plan any dive that exceeds your training or experience level.**
- **Inspect your VOYAGER 2G before every dive.** If it shows any signs of damage or abnormal function, **DO NOT** dive with it until it has received factory prescribed service.
- **Make a Safety Stop at 4,5 to 6 M (15 to 20 FT) at the end of every dive.** It's important, don't forget it.
- **You should make every effort to complete all of your ascents with the Nitrogen Bar Graph inside the normal No Decompression zone.**
- **If you inadvertently entered Decompression, you should not complete your ascent until the Nitrogen Bar Graph is at least inside the No Decompression Caution Zone.**
- **While you cannot provide a guarantee against the occurrence of decompression sickness, you may choose your own personal zone of caution based upon your individual age, physique, excessive weight, training, experience, etc. to reduce the statistical risk. By not pushing the limits, you can establish and adjust your personal level of conservatism and margin of safety.**

GENERAL

CARE AND CLEANING

Protect your VOYAGER 2G from shock, excessive temperatures, chemical attack, and tampering. Protect the lens against scratches with an Instrument lens protector. Small scratches will naturally disappear underwater.

CAUTION: Never spray aerosols of any kind on, or near, the instrument. The propellants may chemically attack the plastic.

- > Soak and rinse the VOYAGER 2G in fresh water at the end of each day of diving, and check to ensure that the areas around the low pressure (depth) sensor (Fig. 96a), PC interface port (Fig. 96b), and buttons are free of debris or obstructions.
- > To dissolve salt crystals, soak the unit in a bath consisting of 50% white vinegar and 50% fresh lukewarm water.
- > After removal from the bath, place the unit under gently running fresh water and towel dry before storing.
- > Transport your unit cool, dry, and protected.

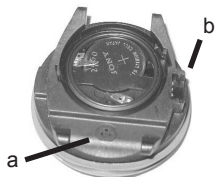


Fig. 96 - BACK OF CASE

WARNING: Never force any object through any slots or holes of the housing. Doing so may damage the depth sensor, possibly resulting in erroneous depth and/or dive time remaining displays.



WARNING: If a Low Battery condition is indicated prior to a dive, DO NOT attempt to dive with the VOYAGER 2G until the battery is replaced.

INSPECTIONS AND SERVICE

Your VOYAGER 2G should be inspected annually by an authorized Beuchat Dealer who will perform a factory prescribed function check and inspection for damage or wear. To keep the 2 years limited warranty in effect, this inspection must be completed one year after purchase (+/- 30 days).

Beuchat recommends that you continue to have this inspection performed every year to ensure it is working properly.

The costs of annual inspections are not covered under the terms of the 2 year limited warranty.



WARNING: If you are in doubt about the accuracy of your VOYAGER 2G's depth readings, DO NOT attempt to dive with it until it has been inspected by Beuchat Customer Service.

It is possible to damage the depth sensor of the VOYAGER 2G if it is not pressure tested properly. Ensure that the dealer adheres to the following warning.



WARNING: Ensure that the VOYAGER 2G is never pressure tested in an air environment. Doing so may damage the depth sensor, possibly resulting in erroneous depth or time readings.

To Obtain Service

Take your VOYAGER 2G to an authorized Beuchat Dealer.

To return your VOYAGER 2G to Beuchat:

- > Record all dive data in the Log and/or download the data in memory. All data will be erased when it receives factory service.
- > Package it using a protective cushioning material.
- > Include a legible note stating specific reason for return, your name, address, daytime phone number, serial number, and a copy of your original sales receipt and Warranty Registration Card.
- > Send freight prepaid and insured using a traceable method to Beuchat.
- > Non-warranty service must also be prepaid (call for an estimate). COD is not accepted.

BATTERY REPLACEMENT

The battery compartment should only be opened in a dry and clean environment with extreme care taken to prevent the entrance of moisture, sand, debris, or dust.

As an additional precautionary measure to prevent formation of moisture in the battery compartment, it is recommended that the Battery be changed in an environment equivalent to the local outdoor temperature and humidity (e.g., do not change the Battery in an air conditioned environment then take it outside during a hot sunny day).



NOTE: The procedures that follow must be closely adhered to. Damage due to improper Battery replacement is not covered by the warranty.

Battery Cover Removal

- > Inspect the buttons, lens, and housing to ensure they are not cracked or damaged.
- > If there is any sign of moisture in the module, DO NOT use the VOYAGER 2G until it receives proper service by an authorized Beuchat Dealer, or the factory.
- > Locate the battery compartment on the back of the housing.
- > While applying steady inward pressure on the battery cover, rotate the cover ring clockwise 10 degrees by turning it with the battery cover tool, or by pressing on the upper/right arm of the ring with a small blade screwdriver (Fig. 97A).
- > An adjustable face spanner tool or a pair of pointed pliers can also be used instead of the battery cover tool by inserting the tips of the spanner tool in the small holes in the ring (Fig. 97B).
- > Lift the cover ring up and away from the housing.
- > Remove the battery cover.



WARNING: If damage, moisture, or corrosion is found, it is recommended that you return your VOYAGER 2G to an authorized Beuchat Dealer, and DO NOT attempt to use it until it has received factory prescribed service.



Fig. 97A - RING REMOVAL

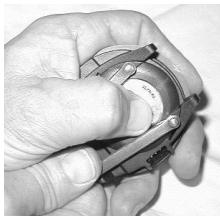


Fig. 97B - RING REMOVAL
(alternate)

While the old battery removed and the new one inserted, nitrogen and oxygen calculations, and settings, will be retained in non volatile memory for subsequent use.

Battery Removal

- > Remove the retaining bar located across the lower portion of the battery (Fig. 98a).
- > Remove the cover o-ring. DO NOT use tools.
- > Using care not to damage the battery contacts (Fig. 98 b/c), slide the battery up and out of the right side of the battery compartment.

⚠ CAUTION: Do not allow a metal object to short circuit the top of the battery which is positive (+) to the negative (-) contact of the battery compartment.

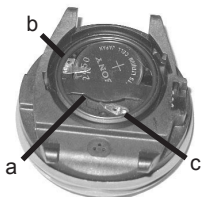


Fig. 98 - BATTERY COMPARTMENT

- > Closely check all of the sealing surfaces for any signs of damage that might impair proper sealing.
- > Inspect the buttons, lens, and housing to ensure they are not cracked or damaged.

Battery Installation

- > Slide a new 3 volt type CR2450 Lithium Battery, negative (-) side down into the battery cavity from the right side and ensure that it slides under the contact clip on the left rim of the cavity.
- > Orient the retaining bar across the lower portion of the battery (Fig. 99a) and carefully push it down into position.

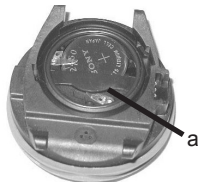


Fig. 99 - BATTERY
INSTALLED

Battery Cover and Cover Ring Installation

- > Lightly lubricate the new cover o-ring with silicone grease and place it on the inner rim of the battery cover. Ensure that it is evenly seated. This o-ring must be a genuine Beuchat part that can be purchased from an authorized Beuchat Dealer. Use of any other o-ring will void the warranty.
- > Slide the cover ring, top portion first (small opening), onto your thumb (Fig. 100).
- > Carefully place the battery cover (with o-ring) into position on the rim of the battery compartment, then press it evenly and completely down into place with your same thumb.
- > Maintain the battery cover securely in place and, using your other hand, slide the cover ring down off your thumb and into position around the battery compartment (Fig. 101). The tabs on the ring fit down into the slots located at the 2 and 9 o'clock positions.



Fig. 100 - INSTALLING
COVER

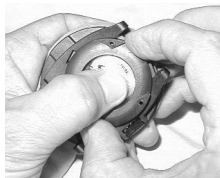


Fig. 101 - POSITION OF
COVER



Fig. 102A - INSTALLING
COVER RING

- > Using your fingers, turn the ring counter clockwise 5 degrees until the tabs engage, then tighten it 5 more degrees by turning it counter clockwise with the aide of the battery cover tool, or a small blade screwdriver, pressing against the upper/left arm of the ring (Fig. 102A).
- > An adjustable face spanner tool or pair of pointed pliers can be used by placing the tips in the small holes of the ring (Fig. 102B).

Inspection

- > Activate the unit and watch carefully as it performs Diagnostic and Altitude/Battery Status checks, and enters Surface Mode. Observe the LCD display to ensure it is consistently clear and sharp in contrast throughout the screen.



WARNING: If any portions of the display are missing or appear dim, or a Low Battery condition is indicated, return your VOYAGER 2G to an authorized Beuchat Dealer for a complete evaluation before attempting to use it.



Fig. 102B - INSTALLING
RING (alternate)

ALTITUDE SENSING AND ADJUSTMENT

Prior to the first dive of a series of repetitive dives, Altitude (i.e., Ambient Pressure) is measured upon activation and every 15 minutes until a dive is made.

- > While it is operating in Surface mode after a dive, measurements are taken every 15 minutes during the 24 hour period after surfacing.
- > Measurements are only taken when the unit is dry.
- > Two readings are taken, the second reading 5 seconds after the first. The readings must be within 30 cm (1 foot) of each other to record that ambient pressure as the current Altitude.

The mathematical model in the VOYAGER 2G accounts for the reduced No Deco Dive Times available based on National Oceanic and Atmospheric Administration (NOAA) guidelines.

When diving in high altitude waters from 916 to 4270 meters (3001 to 14000 feet), the VOYAGER 2G automatically adjusts to these conditions providing corrected Depth, reduced No Deco Dive Times, and reduced Oxygen Accumulation Times at Altitude intervals of 305 meters (1000 feet).

No adjustments are made during any time that the Wet Contacts are wet.

At an elevation of 916 meters (3001 feet), Depth Calibration automatically changes from feet of seawater to feet of fresh water. This is the first adjustment to the Algorithm.

When the Conservative Factor feature is set On, allowable dive times are calculated based upon the next higher 915 meter (3000 foot) Altitude. All adjustments for Altitudes higher than 3355 meters (11000 feet) are then made to allowable dive times for 4270 meters (14000 feet). If the Conservative Factor is set On while at Sea Level, calculations are based upon NDLs listed in the tables for the 1526 to 1830 meter (5001 to 6000 foot) range.

The VOYAGER 2G will not function as a Dive Computer above 4270 meters (14000 feet).

OXYGEN EXPOSURE LIMITS (from NOAA Diving Manual)					
PO2 (ATA)	Max Duration Single Exposure		Max Total Duration 24 Hour Day		
	(min)	(hr)	(min)	(hr)	
0.60	720	12.0	720	12.0	
0.70	570	9.5	570	9.5	
0.80	450	7.5	450	7.5	
0.90	360	6.0	360	6.0	
1.00	300	5.0	300	5.0	
1.10	240	4.0	270	4.5	
1.20	210	3.5	240	4.0	
1.30	180	3.0	210	3.5	
1.40	150	2.5	180	3.0	
1.50	120	2.0	180	3.0	
1.60	45	.75	150	2.0	

PZ+ ALGORITHM >> NDLS (HR:MIN) AT ALTITUDE (METRIC)

Altitude (meters)	0	916	1221	1526	1831	2136	2441	2746	3051	3356	3661	3966
	to	to	to	to	to	to	to	to	to	to	to	to
	915	1220	1525	1830	2135	2440	2745	3050	3355	3660	3965	4270
Depth (M)												
9	3:37	2:41	2:31	2:23	2:16	2:10	2:04	1:59	1:54	1:50	1:43	1:37
12	1:55	1:27	1:21	1:15	1:12	1:08	1:05	1:03	1:00	0:58	0:55	0:54
15	1:08	0:55	0:53	0:51	0:49	0:47	0:44	0:42	0:39	0:37	0:36	0:34
18	0:50	0:39	0:37	0:35	0:33	0:32	0:30	0:28	0:26	0:24	0:23	0:22
21	0:36	0:28	0:26	0:24	0:23	0:21	0:20	0:19	0:18	0:17	0:16	0:16
24	0:27	0:20	0:19	0:18	0:17	0:16	0:15	0:14	0:13	0:12	0:11	0:11
27	0:20	0:16	0:15	0:13	0:12	0:11	0:11	0:10	0:09	0:09	0:09	0:08
30	0:16	0:12	0:11	0:10	0:09	0:09	0:09	0:08	0:08	0:07	0:07	0:07
33	0:13	0:09	0:09	0:08	0:08	0:07	0:07	0:07	0:07	0:06	0:06	0:06
36	0:10	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05
39	0:09	0:07	0:06	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04
42	0:08	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04
45	0:06	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:04
48	0:06	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03
51	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03
54	0:05	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03
57	0:05	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03

PZ+ ALGORITHM >> NDLS (HR:MIN) AT ALTITUDE (IMPERIAL)

Altitude (feet)	0	3001	4001	5001	6001	7001	8001	9001	10001	11001	12001	13001
	to	to	to	to	to	to	to	to	to	to	to	to
	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000
Depth (FT)												
30	3:17	2:30	2:21	2:14	2:08	2:02	1:57	1:52	1:47	1:39	1:34	1:29
40	1:49	1:21	1:15	1:11	1:08	1:05	1:02	1:00	0:57	0:55	0:53	0:51
50	1:05	0:53	0:51	0:49	0:47	0:44	0:42	0:39	0:37	0:35	0:34	0:33
60	0:48	0:37	0:35	0:33	0:32	0:30	0:28	0:26	0:24	0:23	0:22	0:21
70	0:35	0:26	0:24	0:23	0:21	0:20	0:19	0:18	0:17	0:16	0:16	0:14
80	0:26	0:19	0:18	0:17	0:16	0:15	0:14	0:13	0:12	0:11	0:11	0:10
90	0:19	0:15	0:14	0:13	0:12	0:11	0:10	0:10	0:09	0:09	0:08	0:08
100	0:16	0:11	0:10	0:10	0:09	0:09	0:08	0:08	0:07	0:07	0:07	0:07
110	0:12	0:09	0:08	0:08	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05
120	0:10	0:08	0:07	0:07	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05
130	0:08	0:07	0:06	0:06	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04
140	0:07	0:06	0:05	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04
150	0:06	0:05	0:05	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03
160	0:06	0:05	0:05	0:04	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03
170	0:05	0:04	0:04	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03
180	0:05	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03
190	0:04	0:04	0:04	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:03	0:00

SPECIFICATIONS

CAN BE USED AS

- Air Computer
- Nitrox Computer
- Digital Depth Gauge/Timer
- Free Dive Depth Gauge/Timer

DIVE COMPUTER PERFORMANCE

- Buhlmann ZHL-16c based Pelagic Z+ algorithm
- No Deco limits closely follow PADI RDP
- Decompression in agreement with Buhlmann ZHL-16c and French MN90
- No Deco Deep Stops - Morroni, Bennett
- Deco Stops (not recommended) - Blatteau, Gerth, Gutvik
- Altitude - Buhlmann, IANTD, RDP (Cross)
- Altitude corrections and O2 limits based on NOAA tables

SURFACE SEQUENCE/MODES

- NORM > GAUG > FREE Surface Main
- SURF ALTs (Altitude, Battery, Temp, Time)
- Plan (9 to 57 M, 30 to 190 FT) - NORM only
- Time to Fly - NORM/GAUG
- Time to Desaturate - NORM only
- Dive Memo > History - NORM/GAUG
- Set > FO2, Alarms, Utilities, Time - NORM/GAUG

NORM/GAUG SET MODES

- Set F Group (FO2 items):
 - FO2 GAS 1 (Air, 21 to 50%)
 - FO2 GAS 2 (Air, 21 to 100%)
 - FO2 Default (On/Off)
- Set A Group (Alarms):
 - Audible (On/Off)
 - Max Depth (10 to 100 M, 30 to 330 FT)
 - Elapsed Dive Time (:10 to 3:00 hr:min)
 - NiBG (1 to 7 segments)
 - Dive Time Remaining (Off, :05 to :20 min)
 - PO2 (1,20 to 1,60 ATA)
- Set U Group (Utilities):
 - Wet Activation (On/Off)
 - Units of Measure (Metric, Imperial)
 - No Deco Deep Stop (On/Off)
 - No Deco Safety Stop (On/Off)
 - Conservative Factor (On/Off)
 - Backlight Duration (0, 5, 10 seconds)
 - Sampling Rate (2, 15, 30, 60 seconds)
- Set T Group (Time/Date):
 - Date Format (Day,Month, Month,Day)
 - Hour Format (12/24 Hour)
 - Time (hr:min))
 - Date (Year, Month, Day)
- Serial Number
 - > Factory set

SPECIFICATIONS (CONTINUED)

NUMERIC DISPLAYS:

	<u>Range:</u>	<u>Resolution:</u>
• Dive Number	0 to 24	1
• Current Depth	0 to 120 M (399 FT)	0,1 M (1 FT)
• Maximum Depth	120 M (399 FT)	0,1 M (1 FT)
• Gas 1 FO2	Air, 21 to 50 %	1 %
• Gas 2 FO2	Air, 21 to 100 %	1 %
• PO2	0,00 to 5,00 ATA	0,01 ATA
• Dive Time Remaining	0:00 to 9:59 hr:min	1 minute
• No Deco Deep Stop Time	2:00 to 0:00 min:sec	1 second
• No Deco Safety Stop Time	3:00 to 0:00 min:sec	1 second
• Deco Stop Time	0:00 to 9:59 hr:min	1 minute
• Deco Total Ascent Time	0:00 to 9:59 hr:min	1 minute
• Norm/Gaug Elapsed Dive Time	0:00 to 9:59 hr:min	1 minute
• Free Elapsed Dive Time	0:00 to 9:59 min:sec	1 second
	10- to 59- min	1 minute
• Surface Interval Time	0:00 to 9:59 hr:min	1 minute
	10- to 23- hr	1 hour
• Free Surface Interval Time	0:00 to 9:59 min:sec	1 second
	10- to 59- min	1 minute
• Memo Surface Interval	0:00 to 23:59 hr:min	1 minute
• Time to Fly	23:50 to 0:00 hr:min*	1 minute
	(* starting 10 min after the dive)	
• Time to Desaturate	23:50 max to 0:00 hr:min*	1 minute
	(* starting 10 min. after the dive)	
• Temperature	0 to 140°F (-9 to 60°C)	1°
• Time of Day	0:00 to 23:59 hr:min	1 minute
• Free Countdown Timer	:59 to :10 :min	1 minute
	9:59 to 0:00 min:sec	1 second
• Depth Out of Range (- - -)	=> 99,9/120 M (330/399 FT)	
• Violation Countdown Timer	23:50 to 0:00 hr:min (after surfacing)	

SPECIFICATIONS (CONTINUED)

BAR GRAPHS

Nitrogen Bar Graph segments

- No Deco Normal zone 6
- No Deco Caution zone 1
- Deco (alarm) zone 1

Oxygen (O2) Bar Graph: segments

- Normal zone 3
- Caution zone 1
- Danger zone 1

Ascent Rate Indicator:

18 M (60 FT) & Shallower

	<u>segments</u>	<u>MPM</u>	<u>FPM</u>
	0	0 to 3	0 to 10
• Normal Zone	1	3,5 to 4,5	11 to 15
• Normal Zone	2	5 to 6	16 to 20
• Normal Zone	3	6,5 to 7,5	21 to 25
• Caution Zone	4	8 to 9	26 to 30
• Too Fast (flashing)	5 (all)	> 9	> 30

Deeper than 18 M (60 FT)

	<u>segments</u>	<u>MPM</u>	<u>FPM</u>
	0	0 to 6	0 to 20
	1	6,5 to 9	21 to 30
	2	9,5 to 12	31 to 40
	3	12,5 to 15	41 to 50
	4	15,5 to 18	51 to 60
	5 (all)	> 18	> 60

OPERATIONAL PERFORMANCE

Function: Accuracy:

- Depth ±1% of full scale
- Timers 1 second per day

Dive Counter:

- NORM/GAUG displays Dives #1 to 24, FREE displays #1 to 99 (0 if no dive made yet)
- Resets to Dive #1, upon diving (after 24 hours with no dives)

SPECIFICATIONS (CONTINUED)

NORM/GAUG Memo Mode:

- Stores 24 most recent NORM/GAUG dives in memory for viewing.
- After 24 dives, adds 25th dive in memory and deletes the older dive.

Altitude:

- Operational from sea level to 4270 meters (14000 feet) elevation.
- Measures ambient pressure every 30 minutes when not activated, upon activation, and every 15 minutes while in NORM/GAUG/FREE Surface Modes.
- Does not measure ambient pressure when wet.
- Compensates for Altitudes above sea level beginning at 916 meters (3001 feet) elevation and every 1000 feet (305 meters) higher.

Conservative Factor:

- Reduces NORM/FREE NDLs to those for the Altitude 915 meters (3000 feet) higher.

Power:

- Battery (1) 3 vdc, CR2450, Lithium battery.
- Replacement User replaceable (annual recommended).
- Use Life 1 year or 300 dive hours if (2) 1 hour dives per dive day.

Battery Indicator:

- Warning - icon on solid at 2,75 volts, Battery change recommended
- Alarm - icon on flashing at 2,50 volts, change the Battery

Dive Computer Mode Activation:

- Manual - push button (recommended), required if Wet Activation is set Off.
- Automatic - by immersion in water (if set On).
- Cannot be manually activated deeper than 1,2 M (4 FT).
- Cannot operate at elevations higher than 4270 meters (14000 feet).

SPECIFICATIONS (CONTINUED)

Operating Temperature:

- Out of the water - between -6 and 60 °C (20 and 140 °F).
- In the water - between -2 and 35 °C (28 and 95 °F).
- At extremely low temperatures, the LCD may become sluggish, but this will not affect its accuracy. If stored or transported in extremely low temperature areas (below freezing), you should warm the unit and its battery with body heat before diving.

Storage Temperature:

- Out of the water (in storage case) - between -8 and 70 °C (14 and 158 °F).

PC requirements:

- IBM[®], or compatible, Personal Computer with Mouse, USB Port, CD drive, and printer.
- Intel[®] Pentium 200 MHz or better microprocessor.
- Microsoft[®] Windows[®] 98 Second Edition, ME, NT, 2000, XP, or Vista.
- Super VGA card or compatible video graphics adaptor (256 color or greater) with a minimum 800 X 600 pixel screen area of display settings.
- 20MB of available hard drive storage.
- 16MB of available RAM.

INSPECTION / SERVICE RECORD

Serial Number: _____

Firmware Revision: _____

Date of Purchase: _____

Purchased from: _____

Below to be filled in by the Authorized Beuchat Dealer:

Date	Service Performed	Dealer/Technician



VOYAGER-2G

OPERATING MANUAL
